Cool Tunes Contest | Keynote

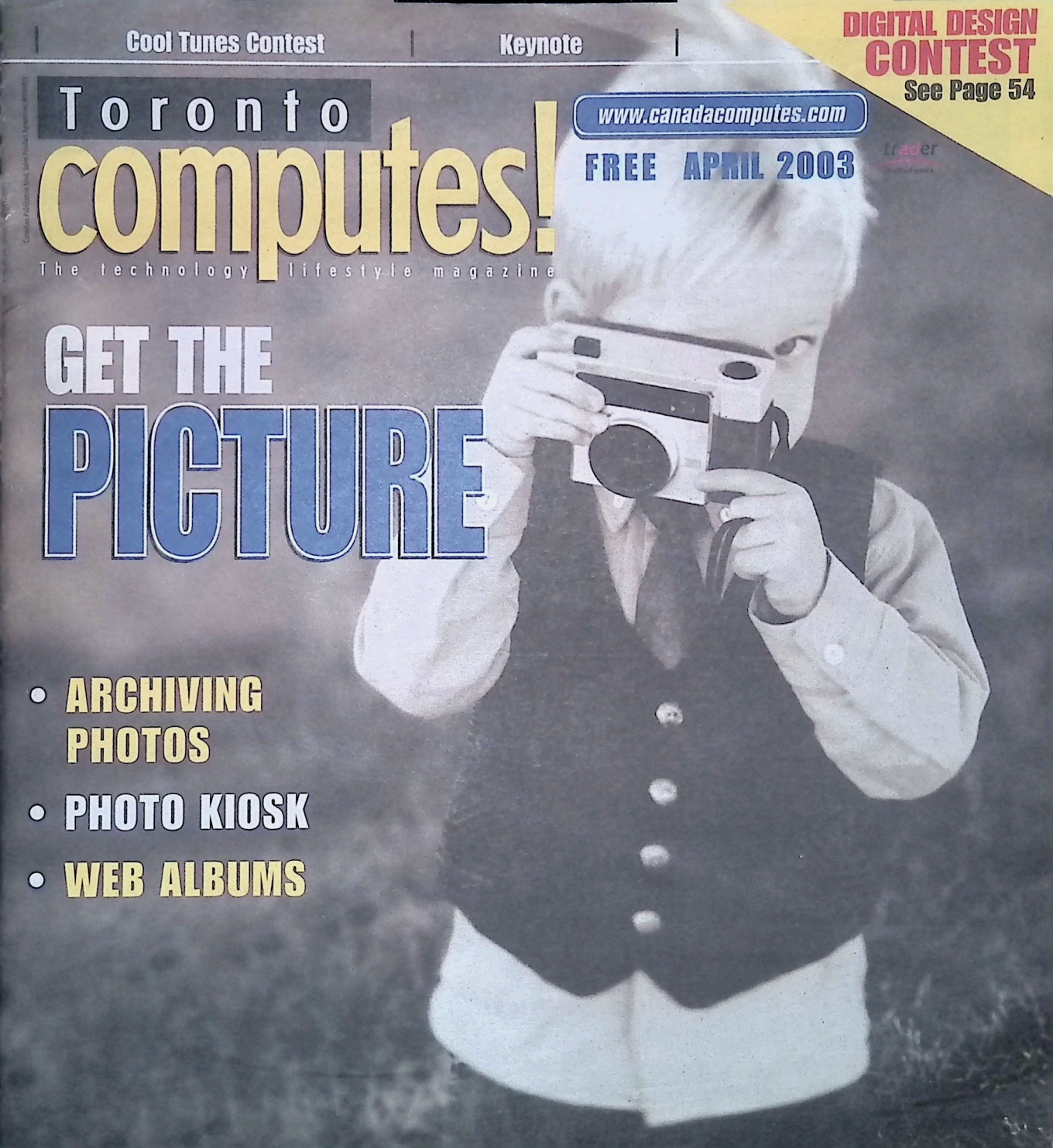
DIGITAL DESIGN CONTEST
See Page 54

# Toronto computes!

The technology lifestyle magazine

www.canadacomputes.com

FREE APRIL 2003



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- ARCHIVING PHOTOS
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- WEB ALBUMS

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| Dial-Up Product Matrix | 15 Hours | 50 Hours | 100 Hours | 150 Hours | Unlimited | Unlimited Dual Login |
|---|---|---|---|---|---|---|
| Monthly Price | $5.00 | $9.95 | $14.95 | $19.99 | $19.99 | $29.99 |
| Yearly Price | $60.00 | $99.50 | $149.99 | $199.99 | $239.99 | $299.99 |
| Additional Hours | $1.00 | $1.00 | $0.50 | $0.50 | N/A | N/A |
| E-Mail Addresses | 1 | 1 | 2 | 5 | 4 | 8 |
| WebSpace | 5 MB | 10 MB | 10 MB | 20 MB | 20 MB | 30 MB |
| Spam Filtering | FREE | $10/Yr* | $10/Yr* | $10/Yr* | $10/Yr* | $10/Yr* |
| Anti-Virus Filtering | $10/Yr* | | | | | |
| WebMail Access | FREE | FREE | FREE | FREE | FREE | FREE |

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> 10MB WebSpace
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> 10Mb WebSpace
> 20hrs Free Dial-Up!

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## Residential DSL Access

| DSL Product Matrix | Static IP | Unlimited Access | Transfers /Month** | Virtual Host | E-Mail Addresses | Web Space | Dial-Up Access | Modem Included | Set-Up Fees | Monthly Fees |
|---|---|---|---|---|---|---|---|---|---|---|
| 1Mb PPPoE | N | Y | 15GB | N | 5 | 10MB | 20 Hr/mth | N | N/A | $34.95 |
| 3Mb PPPoE | N | Y | 15GB | N | 5 | 10MB | 20 Hr/mth | N | N/A | $69.95 |
| 1Mb PPPoE/HO | N | Y | 15GB | Y | 10 | 50MB | 20 Hr/mth | N | $50.00 | $59.95 |
| 3Mb V-Lan | Y | Y | 20GB | N | 5 | 10MB | 20 Hr/mth | Y | $275.00 | $109.95 |
| 3Mb V-Lan/HO | Y | Y | 20GB | Y | 10 | 100MB | 30 Hr/mth | Y | $275.00 | $134.95 |

* SPAM and Anti-Virus Filtering available for $10 per year with the pre-payment of a years service. ** Additional transfers billed at the rate of $4.90 per GB.
*** $24.95 per month for the first 3 months then price reverts to $34.95 per month. Modem rental not included.

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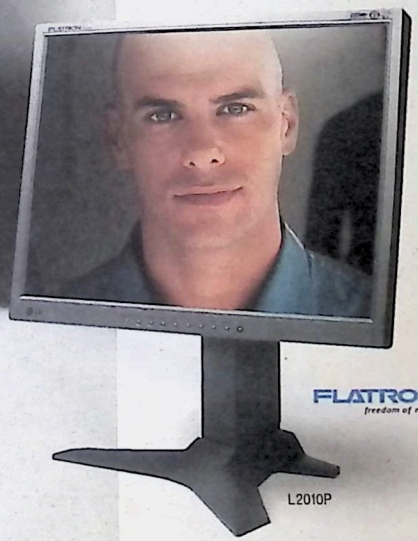


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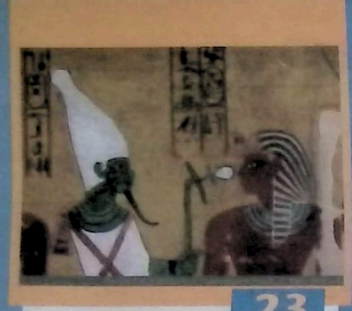

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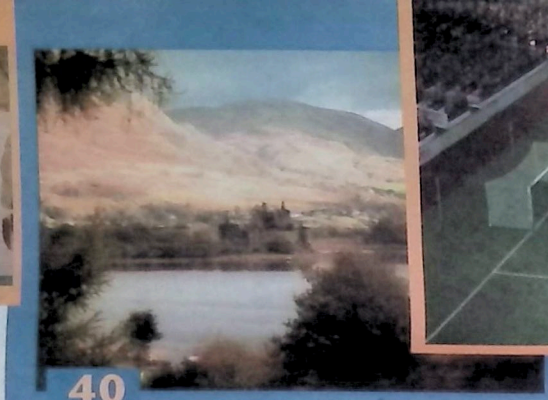

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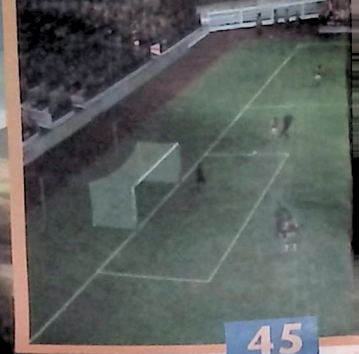

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## CONTESTS

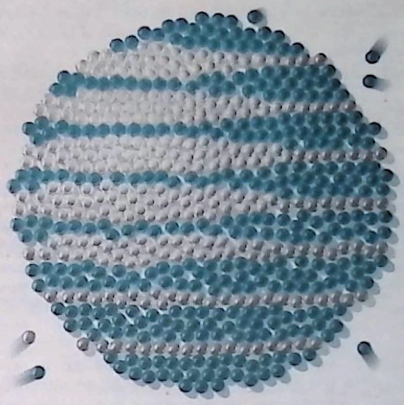
See page 40 for details on the Cool Tunes Contest.

Check out page 45 for info on a new Photo Spree Assignment.

Or how about entering that cool piece of artwork you did in our Digital Design Contest. See page 54 for details.

toronto computes!

April 2003



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Our enhanced services will strengthen your hosting investment. They include managed security, data back-up, load balancing and database management.

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## From the editor

Wow, are computers ever cheap. Inexpensive, that is. Sitting here in the editorial department of *Toronto Computes!* we realize that prices are tumbling down, but you only come face to face with it when you go to a store and buy a system.

I recently had to do just that. My mom needed a computer upgrade. We decided that a complete system would be better suited because upgrading individual components on her current machine was fraught with risks and might be more hassle than it was worth. She had an original Pentium machine with a motherboard that had integrated video and sound. No AGP slot for a video card. Two PCI and two ISA slots. Like the song says, "Know when to walk away and know when to run."

Since the computer needs of my mom are modest, the computer we got for her was a 1.2 GHz machine with 256 MB of memory, a large and fast hard drive, and integrated sound, video, and a network adapter. The price with tax was a tad over $500. We paid another $50 for a refurbished 15-inch monitor, as the old monitor was really old – about 14 years. Folks, that ain't much for a machine that is very powerful. It will run any and all software that is out there, perhaps only stumbling a bit on some high-end games. It can do basic photo editing, digital video editing, music recording, play MP3s, and a host of things only dreamed of about five years ago.

It used to be, about 10 years ago, that when buying a computer you had to budget about $2,000 for a very good, but not top-notch, system. This system would last a couple of years at the most before it became obsolete and unable to run new software titles. The price for this high-middle type of computer kept sliding downward, but the longevity of the machine did not really increase.

Once the processor speeds hit the 1 GHz mark about two years ago, things changed. CPU speeds have outstripped the requirements of software being made today. I have not encountered any software package that even recommends a 1 GHz CPU. What this means for the consumer is that the prices will, and are, tanking because the premium prices are charged on systems with 3 GHz processors. Good performing systems with processors under 2 GHz are a steal. Another bonus is that the computers consumers buy today will last longer because it will take software a very long time to break the 1 GHz barrier. (Who knows if this will even happen – oh my, am I getting out on a limb here?)

The bad news is that as prices fall and the need to purchase a new computer every year or so diminishes, stores that sell computers go out of business. For the consumer, less stores means less competition and a rise in prices. However, the bargains that are available today will undoubtedly get more people buying their first computer.

Nestor Gula can be reached by e-mailing nestor@tcp.ca ◆

## Reader Feedback

**Re: Digital Shots: Flash something**

Recently I had to take some pictures of improvements I made to my place. Getting close enough to show detail, the flash would wash everything out and of course there wasn't enough ambient light. So here's a tip: Put a layer or several of toilet/Kleenex tissue just over the flash to reduce and diffuse the light.

**Cameron Kerr**

**Rebate only for persistent purchasers with immense amount of free time**

Your review of *QuickTax* and *Taxwiz (TC! March 2003)* was useful but one additional thing readers may be interested in and that reviewers are not in a position to spot, maybe, is the deceptiveness of the mail-in "rebate" ploy.

In the case of *QuickTax* the method of claiming the rebate after purchase is so mechanically complex and time-consuming, so demanding of information and multiple documentary proofs as to constitute at least a breach of good faith. *QuickTax* is making quite sure that only the most persistent purchasers with immense amount of free time on their hands will ever claim – or qualify for – the rebate.

How does *TaxWiz* compare in this regard?

**Michael Sidnell**

**Re: You can run, but you can't hide *(TC! March 2003)***

I used to laugh at "conspiracy theorists," claiming we're all being watched, all the time. However, as I grow older, I'm starting to think perhaps they have a point.

That's not to say I worry that I'm being watched by "the powers that be," but the thought that just about anyone can find out much of my personal information, needing only the time, know-how and desire to know, is disconcerting.

Most Internet users are small fish in a big ocean, and as such, aren't on the radar to be checked up on. As Alan Thwaits said in his column, the very fact that we could be watched if some arbitrary person decided we're worth watching is worrisome.

I have also told my browser to warn me before accepting cookies; the extra few (or few hundred, as it were) clicks is a small price to pay to know – as well as we can know anyway – who wants to know about me.

**Mary Galloway**

The Editor Toronto Computes!
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toletters@tcp.ca

Letters on issues raised in the paper or general computer topics are welcome. Please be brief. We regret that we are unable to look up stories from past issues, suggest products, or solve all your computer problems. All correspondence must include your full name in addition to your e-mail or snail-mail address. Letters may be edited for space or content.

## Letter of the Month

For her letter this month, Mary Galloway wins a copy of *Tom Clancy's Splinter Cell* from Ubi Soft Entertainment. The most acclaimed Xbox game of 2002 comes to the PC with the same focus on stealth, the same challenging missions and the same involving gameplay. Players control Sam Fisher as he collects intelligence, neutralizes the enemy and destroys sensitive data, all without leaving a trace.


Toronto computes!

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**May 2003 Issue:** *Video*
**Ad deadline:** Tuesday, April 22
**Distribution:** Commencing Wednesday, April 30
The full text of *TC!* is available online at:
**www.canadacomputes.com**

# PREMIER COMPUTER CANADA - PCCANADA.COM

APR

## PREMIER CHOICE BRONZE

- ☑ ECS P4VMM2-3.2a for Socket 478 CPUs or ECS K7VMM+ for Socket A CPUs
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 40Gb Fast ATA-100 Hard Disk Drive @ 5400RPM
- ☑ 256Mb DDR RAM, PC2100, 184Pin RAM Memory
- ☑ Economy Mid-Tower 6 Bay ATX Case
- ☑ Cyberzone True 300W Power Supply w/ Dual fans
- ☑ 2- USB Ports, 1- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- ☑ On-Board AGP 3D Video w/ 64Mb Buffer
- ☑ On-Board PCI Stereo Sound w/ Surround Sound
- ☑ 56k Fax/Modem w/ Voicemail, v.90, AMR
- ☑ On-Board 10/100 PCI Full Duplex Network Adapter
- ☑ Fifty-Two Speed (52X) Max EIDE CD-ROM Drive
- ☑ Samsung 750S Digital ,24hdp SVGA Colour Monitor
- ☑ Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Labtec Spin 50 Amplified Powered Stereo Speakers
- ☑ Microsoft Compatible Serial Mouse w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

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|---|---|
| **AMD Duron 1.3-GHz** | **$774.99 or $29/mth** |
| **AMD Athlon XP-1700+** | **$814.99 or $30/mth** |
| **AMD Athlon XP-1800+** | **$819.99 or $30/mth** |
| **AMD Athlon XP-2000+** | **$844.99 or $31/mth** |
| **AMD Athlon XP-2100+** | **$859.99 or $32/mth** |
| **AMD Athlon XP-2200+** | **$879.99 or $32/mth** |
| **AMD Athlon XP-2400+** | **$934.99 or $34/mth** |
| **Intel Celeron-1.7GHz** | **$794.99 or $29/mth** |
| **Intel Celeron-1.8GHz** | **$819.99 or $30/mth** |
| **Intel Celeron-2.0GHz** | **$839.99 or $31/mth** |
| **Intel Celeron-2.1GHz** | **$854.99 or $32/mth** |
| **Intel Celeron-2.2GHz** | **$874.99 or $32/mth** |
| **Intel Pentium 4-1.7GHz** | **$904.99 or $33/mth** |
| **Intel Pentium 4-1.8GHz** | **$919.99 or $34/mth** |
| **Intel Pentium 4-2.4B-512k** | **$954.99 or $35/mth** |
| **Intel Pentium 4-2.5B-512k** | **$1004.99 or $37/mth** |
| **Intel Pentium 4-2.6B-512k** | **$1006.99 or $39/mth** |

## PREMIER CHOICE SILVER

- ☑ Abit KD7 Motherboard for AMD Socket A or Abit BH7 Motherboard for Intel Pentium 4 CPUs
- ☑ Thermaltake Volcano 6CU+ Heat Sink/Fan for AMD CPU
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 60Gb Fast ATA-100 Hard Disk Drive @ 7200RPM
- ☑ 256Mb DDR RAM, PC2700, 184Pin RAM Memory
- ☑ Premium 6 Bay Mid-Tower ATX Case w/ HEC 300W P.S.
- ☑ 4- USB Ports, 2- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- ☑ ATI Radeon 9100 AGP Video w/ 64Mb & TV-Out
- ☑ Samsung DVD/CD-RW Combo Drive (48/24/48/16)
- ☑ On-board PCI Stereo Sound w/ Surround Sound
- ☑ Altec Lansing AVS500 w/ 4 Speakers & Subwoofer
- ☑ Rockwell 56K Int. Voice/Fax/Modem v.90 (PCI)
- ☑ On-Board 10/100 PCI Full Duplex Network Adapter
- ☑ Samsung 753DF 17" Digital ,20hdp CRT Monitor, Flat
- ☑ Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Logitech Optical Mouse w/ Wheel w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

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|---|---|
| **AMD Duron 1.3-GHz** | **$1144.99 or $42/mth** |
| **AMD Athlon XP-1700+** | **$1184.99 or $44/mth** |
| **AMD Athlon XP-1800+** | **$1189.99 or $44/mth** |
| **AMD Athlon XP-2000+** | **$1214.99 or $45/mth** |
| **AMD Athlon XP-2100+** | **$1229.99 or $45/mth** |
| **AMD Athlon XP-2200+** | **$1249.99 or $46/mth** |
| **AMD Athlon XP-2400+** | **$1304.99 or $48/mth** |
| **AMD Athlon XP-2500+** | **$1354.99 or $50/mth** |
| **AMD Athlon XP-2800+** | **$1644.99 or $55/mth** |
| **Intel Celeron-1.7GHz** | **$1164.99 or $43/mth** |
| **Intel Celeron-2.0GHz** | **$1209.99 or $44/mth** |
| **Intel Celeron-2.2GHz** | **$1224.99 or $46/mth** |
| **Intel Pentium 4-1.7GHz** | **$1274.99 or $47/mth** |
| **Intel Pentium 4-1.8GHz** | **$1289.99 or $47/mth** |
| **Intel Pentium 4-2.4B- 512k** | **$1324.99 or $49/mth** |
| **Intel Pentium 4-2.5B- 512k** | **$1374.99 or $50/mth** |
| **Intel Pentium 4-2.6B- 512k** | **$1439.99 or $53/mth** |
| **Intel Pentium 4-2.8B- 512k** | **$1619.99 or $54/mth** |

## PREMIER CHOICE GOLD

- ☑ Asus P4SDX Motherboard for Intel Pentium 4 CPUs or Asus A7V8X Motherboard for AMD CPUs
- ☑ Thermaltake Volcano 7 Heat Sink /Fan for AMD CPUs
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 80Gb ATA-100 Hard Disk Drive @ 7200RPM w/ 8Mb
- ☑ 512Mb DDR RAM, PC2700, 184 Pin RAM Memory
- ☑ Enlight Mid-Tower ATX Case w/ 7 Bays & 2 Front USB
- ☑ Enlight True 360W ATX Power Supply
- ☑ On-Board SATA Controller & Ultra/133 Support
- ☑ 4- USB 1.1 Ports, 2- USB 2.0 Ports, 1- 1394 Firewire Port, 2- Serial Ports & 1- Bi-Directional Parallel Port
- ☑ Asus v9280TD GeForce4 Ti4200-8X w/ 128Mb / TV-Out
- ☑ Sony 52x12x48 CD-RW Drive w/ Burn Software
- ☑ Sony 16X DVD-ROM Drive w/ 40X CDROM support
- ☑ SoundBlaster Live 5.1 PCI Stereo Soundcard
- ☑ Creative Inspire 4.1-4400 Speaker System w/ Sub
- ☑ On-Board 10/100 PCI Full Duplex Network Adapter
- ☑ Samsung 950B 19" Digital ,22hdp CRT Monitor
- ☑ Keytronic 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Microsoft Wheel Mouse Optical Mouse w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

| | |
|---|---|
| **AMD Duron 1.3-GHz** | **$1494.99 or $50/mth** |
| **AMD Athlon XP-1700+** | **$1534.99 or $51/mth** |
| **AMD Athlon XP-1800+** | **$1539.99 or $51/mth** |
| **AMD Athlon XP-2000+** | **$1564.99 or $52/mth** |
| **AMD Athlon XP-2100+** | **$1579.99 or $53/mth** |
| **AMD Athlon XP-2200+** | **$1599.99 or $53/mth** |
| **AMD Athlon XP-2400+** | **$1654.99 or $55/mth** |
| **AMD Athlon XP-2500+** | **$1704.99 or $57/mth** |
| **AMD Athlon XP-2800+** | **$1994.99 or $67/mth** |
| **Intel Celeron-1.7GHz** | **$1544.99 or $52/mth** |
| **Intel Celeron-2.0GHz** | **$1589.99 or $53/mth** |
| **Intel Celeron-2.2GHz** | **$1624.99 or $54/mth** |
| **Intel Pentium 4-2.4B- 512k** | **$1704.99 or $57/mth** |
| **Intel Pentium 4-2.5B- 512k** | **$1754.99 or $59/mth** |
| **Intel Pentium 4-2.6B- 512k** | **$1819.99 or $61/mth** |
| **Intel Pentium 4-2.8B- 512k** | **$1999.99 or $67/mth** |

## PREMIER CHOICE BLACK

- ☑ Asus P4G8X-DX Motherboard for Intel Pentium 4 CPUs or Asus A7N8X-DX Motherboard for AMD CPUs
- ☑ Thermaltake Volcano 7+ Heat Sink /Fan
- ☑ Panasonic 3.5" - 1.44MB Black Floppy Disk Drive
- ☑ 80Gb ATA-150 Hard Disk Drive @ 7200RPM w/ 8Mb
- ☑ 512Mb DDR RAM, PC3200, 184 Pin RAM Memory
- ☑ Nest Mid-Tower ATX Case w/ Window and Neon Lights
- ☑ Enlight True 420W ATX Power Supply w/ 2 Fans
- ☑ On-Board SATA Raid Controller & Ultra/133 Support
- ☑ 6- USB Ports and 4- 1394 Firewire Ports
- ☑ Sapphire Radeon 9700 w/ 128Mb & DVI
- ☑ Sony 48x12x48 Black CD-RW Drive w/ Burn Software
- ☑ Sony 16X Black DVD-ROM Drive w/ 40X CDROM
- ☑ Realtek ALC650 Audio w/ 6 Chsnnel Support
- ☑ Creative Inspire 6.1 6000 w/ 6 Speakers & Subwoofer
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- ☑ Arctic Silver III Thermal Heat Compound
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| | |
|---|---|
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| **AMD Athlon XP-2100+** | **$2114.99 or $71/mth** |
| **AMD Athlon XP-2200+** | **$2134.99 or $71/mth** |
| **AMD Athlon XP-2400+** | **$2169.99 or $73/mth** |
| **AMD Athlon XP-2500+** | **$2239.99 or $75/mth** |
| **AMD Athlon XP-2800+** | **$2529.99 or $84/mth** |
| **AMD Athlon XP-3000+** | **$2849.99 or $95/mth** |
| **Intel Celeron-2.0GHz** | **$2199.99 or $73/mth** |
| **Intel Celeron-2.2GHz** | **$2234.99 or $74/mth** |
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| **Intel Pentium 4-2.5B- 512k** | **$2364.99 or $79/mth** |
| **Intel Pentium 4-2.6B- 512k** | **$2429.99 or $81/mth** |
| **Intel Pentium 4-2.8B- 512k** | **$2609.99 or $87/mth** |
| **Intel Pentium 4-3.0B- 512k** | **$2919.99 or $97/mth** |

## Premier CPUs & Memory

Use to fluctuating memory and CPU pricing, Check our web site for up-to-date pricing.

| | |
|---|---|
| AMD Duron 1.3-GHz @ 100/200MHz (Socket A) | see web |
| AMD Athlon XP 1700+ @ 266Mhz (Socket A) | see web |
| AMD Athlon XP 1800+ @ 266Mhz (Socket A) | see web |
| AMD Athlon XP 2000+ @ 266Mhz (Socket A) | see web |
| AMD Athlon XP 2100+ @ 266Mhz (Socket A) | see web |
| AMD Athlon XP 2700+ @ 333Mhz (Socket A) | see web |
| AMD Athlon XP 2400+ @ 266Mhz (Socket A) | see web |
| AMD Athlon XP 2000+ @ 333Mhz (Socket A) | see web |
| AMD Athlon XP 2800+ @ 333Mhz (Socket A) | see web |
| AMD Athlon XP 2500+ Barton (Socket A) | see web |
| Intel Celeron 1.7-GHz (Socket 478) @ 400Mhz | see web |
| Intel Celeron 1.8-GHz (Socket 478) @ 400Mhz | see web |
| Intel Celeron 2.0-GHz (Socket 478) @ 400Mhz | see web |
| Intel Celeron 2.2-GHz (Socket 478) @ 400Mhz | see web |
| Intel Pentium 4-1.7-GHz (Socket 478) | see web |
| Intel Pentium 4-1.8-GHz (Socket 478) | see web |
| Intel Pentium 4-2.4-GHz @ 533 Mhz (S478) 512k | see web |
| Intel Pentium 4-2.5-GHz @ 533 Mhz (S478) 512k | see web |
| Intel Pentium 4-2.6-GHz @ 533 Mhz (S478) 512k | see web |
| Intel Pentium 4-2.8-GHz @ 533 Mhz (S478) 512k | see web |
| Intel Pentium 4-3.0-GHz @ 533 Mhz (S478) 512k | see web |

*Full List of CPUs Available Online*

| | |
|---|---|
| 128 MB, SDRAM SDRAM PC133Mhz | see web |
| 256 MB, SDRAM SDRAM PC133Mhz | see web |
| 512 MB, SDRAM SDRAM PC133Mhz | see web |
| 256 MB, DDRAM SDRAM PC2100 (266Mhz) | see web |
| 512 MB, DDRAM SDRAM PC2100 (266Mhz) | see web |
| 1 GB, DDRAM SDRAM PC2100 (266Mhz) | see web |
| 256 MB, DDRAM SDRAM PC2700 (333Mhz) | see web |
| 512 MB, DDRAM SDRAM PC2700 (333Mhz) | see web |
| 256 MB, DDRAM SDRAM PC3200 (400Mhz) | see web |
| 512 MB, DDRAM SDRAM PC3200 (400Mhz) | see web |
| OCZ 256 MB, DDRAM SDRAM PC2700 | see web |
| OCZ 256 MB, DDRAM SDRAM PC3200 | see web |
| OCZ 256 MB, DDRAM SDRAM PC3500 Ed. | see web |
| OCZ 2x 256 MB, DDRAM PC3500 Dual Channel EL | see web |
| OCZ 512 MB, DDRAM SDRAM PC2700 | see web |
| OCZ 512 MB, DDRAM SDRAM PC3200 | see web |
| OCZ 512 MB, DDRAM SDRAM PC3500 EL | see web |
| OCZ 2x 512 MB, DDRAM PC3500 Dual Channel EL | see web |
| 128 MB, Rambus, PC800 Non-ECC | see web |
| 256 MB, Rambus, 184Pin, PC800 Non-ECC | see web |
| 512 MB, Rambus, 184Pin, PC800 Non-ECC | see web |
| 256 MB, Rambus, PC1066 Non-ECC | see web |

## Premier Cooling & Accessories

| | |
|---|---|
| Thermaltake Volcano 6 CU / CU+ | $14.99/$14.99 |
| Thermaltake Volcano 7 / 7+ w/ Variable 80mm fan | $24.99/$14.99 |
| Thermaltake Volcano 9 / 9 Cool Mod | $29.99/$14.99 |
| Thermaltake Aquarius III - Liquid Cooling Kit | $74.99 |
| Thermaltake Case Fans 60mm/80mm Smart Fan | $5.99/$9.99/$14.99 |
| Thermaltake Crystal Orb / 04 VOA Cool Mod | $19.99/$29.99 |
| Thermaltake Memory Cooling Kit | $14.99 |
| Vantec Stealth 80mm Case Fan | $14.99 |
| 80mm Case Fans w/ Bluelfied LEDs or 4-Color LEDs | $10.99 |
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| USB 2.0 Enclosure (Makes any IDE Drive a USB 2.0 External Drive) | $79.99 |
| Asus / Fanal Deluxe Monitoring System | $59.99 |
| Highpoint Rocketraid 100 (Allows EIDE Hard Drive to plug in SATA Port) | $39.99 |
| Cold Cathode NEON Lights - Sound Activated (Blue / Red / Green) | $29.99 |

*Full List of Cooling Supplies Available Online*

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|---|---|
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| SoundBlaster LIVE Value 5.1 | $49.99 |
| SoundBlaster Audigy Value | $74.99 |
| SoundBlaster Audigy 2 | $124.99 |
| SoundBlaster Audigy 2 Platinum | $204.99 |
| SoundBlaster Audigy 2 Platinum ex | $329.99 |
| SoundBlaster Audigy 2 ZS | $209.99 |
| Altec Lansing AVS-200 w/ 2 Speakers | $24.99 |
| Altec Lansing AVS-300 w/ 2 Speakers & Subwoofer | $39.99 |
| Altec Lansing AVS-500 w/ 4 Speakers & Subwoofer | $74.99 |
| Altec Lansing 5101 w/ 5 Speakers & Subwoofer | $114.99 |
| Creative Inspire 2.1 2500 w/ 2 Speakers & Subwoofer | $49.99 |
| Creative Inspire 5.1 4400 w/ 4 Speakers & Subwoofer | $99.99 |
| Creative Inspire 5.1 5200 w/ 5 Speakers & Subwoofer | $100.99 |
| Creative Inspire 5.1 6000 w/ 6 Speakers & Subwoofer | $164.99 |

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## Premier Motherboards

*Motherboards for AMD CPUs*

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|---|---|
| Abit AT7-Max2, Socket A, VIA KT400 (ATX) Non-Legacy | $249.99 |
| Abit KD7-E, Socket A, VIA KT333 (ATX) | $119.99 |
| Abit KD7, Socket A, VIA KT400 (ATX) w/o/w RAID | $134.99/$154.99 |
| Asus A7S333, Socket A, SiS745 (ATX) | $99.99 |
| Asus A7V8X, Socket A, KT400 (ATX) Serial ATA | $169.99 |
| Asus A7N8X-DX, Socket A, nForce2 (ATX) Serial ATA | $204.99 |
| Asus K7S6A, Socket A, SiS 746 Chipset w/ Lan & Sound | $94.99 |
| ECS K7VMM+, Socket A (MATX) w/ Video, Sound & Lan | $94.99 |

*Motherboards for Intel CPUs*

| | |
|---|---|
| Abit BE7, Socket 478, i865 Chipset (845PE (ATX) w/o/w RAID | $144.99/$169.99 |
| Abit BH7, Socket 478, Intel i845PE (ATX) | $129.99 |
| Asus P4B533-E, Socket 478, Intel i845PE Chipset (ATX) Non-Legacy | $249.99 |
| Asus P4G8X-DX, Socket 478, Intel E7205 Chipset (ATX) | $299.99 |
| Asus P4PE-Lan, Socket 478, Intel i845PE Chipset (ATX) | $159.99 |
| Asus P4P-GDH2 (ATX) Intel 845, Socket 478, Intel i845PE Chipset (ATX) | $214.99 |
| Asus P4SDX, Socket 478, SiS 655 Chipset (ATX) | see web |
| Asus P4S533-C, Socket 478, Intel i850e Chipset (ATX) | $224.99 |
| ECS P4VMM2-3.2a Socket 478, Via Chipset w/ Lan & Sound | $69.99 |
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| ECS P4VMM+, Socket 370 (MATX) w/ Video, Sound & Lan | $59.99 |
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*Full List of Motherboards available on our Website*

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*Cables, Ends and Adapters are also available*

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|---|---|
| SMC 10/100/1000 - 5 Port Hub | $49.99 |
| Linksys BEFSR41 Cable/xDSL Router - 4 Port | $89.99 |
| Linksys BEFSR81 Cable/xDSL Router - 8 Port | $129.99 |
| Linksys WRV11B Wireless Cable/xDSL Router - 4 Port | $179.99 |
| SMC Barricade Cable/xDSL Router - 4 Port w/ Printer Port | $114.99 |

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All Brands

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|---|---|
| 40GB ATA/100 5400RPM EIDE Hard Drive | $99.99 |
| 60GB ATA/100 5400RPM EIDE Hard Drive | $119.99 |
| 40GB ATA/100 7200RPM EIDE Hard Drive | $109.99 |
| 60GB ATA/100 7200RPM EIDE Hard Drive | $129.99 |
| 80GB ATA/100 7200RPM EIDE Hard Drive | $144.99 |
| 120GB ATA/100 7200RPM EIDE Hard Drive | $184.99 |
| 160GB ATA/133 7200RPM Hard Drive w/ 8Mb | $334.99 |
| Maxtor 200GB ATA/133 7200RPM Hard Drive w/ 8Mb | $399.99 |
| Seagate 200GB ATA/133 7200RPM Hard Drive w/ 8Mb | $219.99 |
| WD 80GB ATA/100 7200RPM Hard Drive w/ 8Mb | $159.99 |
| WD 120GB ATA/100 7200RPM Hard Drive w/ 8Mb | $229.99 |
| WD 160GB ATA/100 7200RPM Hard Drive w/ 2Mb or 8Mb | $294.99/$343.99 |
| WD 200GB ATA/100 7200RPM Hard Drive w/ 2Mb or 8Mb | $349.99/$394.99 |

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| | |
|---|---|
| Panasonic 1.44Mb Floppy Disk Drive (Black or Beige) | $14.99 |
| Samsung 1.44Mb Floppy Disk Drive (USB) | $34.99 |
| Iomega Zip 250Mb USB (Parallel) | $109.99/$134.99 |
| Promise Ultra/133 TX2 Controller Card | $69.99 |

## Premier CD/DVD-ROM & RW Drives

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|---|---|
| Sony 52x CD-ROM Drives (7.8MB/Sec) | $34.99 |
| Pioneer 12x/10x/32x Slot-Load CD-RW Drives (Beige) | $62.99 |
| Sony 16X DVD-ROM Drive (Black) | $69.99 |

*Full List of Drives Available Online*

| | |
|---|---|
| Plextor Plexwriter CD-Re/Writer (40x24x40x) | $169.99 |
| Panasonic CD-Re-Writer w/ Burn-Proof (40x12x40x) | $84.99 |
| Samsung CD-Re-Writer w/ Burn-Proof (40x12x40x) (Black) | $89.99 |
| Sony CD-Re-Writer w/ Burn-Proof (40x12x40x) (Beige) | $74.99 |
| Sony CD-Re-Writer w/ Burn-Proof (40x12x40x) (Black) | $89.99 |
| Sony CD-Re-Writer w/ Burn-Proof (52x24x52x) (Beige) | $99.99 |
| Samsung DVD/CD-RW Combo Drive (48x24x48x16x) (Beige) | $134.99 |
| Pioneer DVR-A05 (DVD-R/RW & CD-R/RW) | $414.99 |

## Premier Video Cards

| | |
|---|---|
| Asus v8170DDR/SE GeForce 4 MX440 64Mb DDR TV-Out | $99.99 |
| Asus v8180/TD GeForce 4 MX440-8x 64Mb DDR TV-Out | $124.99 |
| Asus v8180VS GeForce 4 MX440-8x 64Mb DDR NVIO | $124.99 |
| Asus v9170/TD GeForce 4 Ti4200 64Mb DDR | $274.99 |
| Asus v9280/S GeForce 4 Ti4200 8x w/ 128Mb DDR | $374.99 |
| ATI Xpert 2000 Pro w/ 32Mb DDR | $99.99 |
| ATI Radeon 7000 w/ 64Mb SDRAM AGP w/ Video Out (Sapphire) | $99.99 |
| ATI Radeon 9100 w/ 64Mb DDR AGP w/ Video Out (Sapphire) | $179.99 |
| ATI Radeon 9100 w/ 128Mb DDR AGP w/ Video Out (Sapphire) | $194.99 |
| ATI Radeon 9500 w/ 128Mb DDR AGP w/ Video Out (Sapphire) | $259.99 |
| ATI Radeon 9500Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire) | $294.99 |
| ATI Radeon 9700 w/ 128Mb DDR AGP w/ Video Out (Sapphire) | $374.99 |
| ATI Radeon 9700Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire) | $399.99 |
| ATI Radeon 9700Pro w/ 128Mb DDR AGP w/ Video Out | $499.99 |
| ATI All-In-Wonder Radeon 7500 w/ 64Mb AGP DDR | $249.99 |
| ATI All-In-Wonder Radeon 9700 w/ 128Mb AGP DDR | $474.99 |
| ATI All-In-Wonder Radeon 9700Pro w/ 128Mb AGP DDR | $599.99 |
| Leadtek WinFast TV 2000 XP - TV & FM Tuner | $99.99 |

*Full List of Video Cards Available Online*

| | |
|---|---|
| ATI TV Wonder PCI / USB | $79.99 |
| Leadtek WinFast TV 2000 XP - TV & FM Tuner | $99.99 |

## Premier Fax Modems

| | |
|---|---|
| 56K Int. (v92) AMR | $14.99 |
| Rockwell 56K Int. w/ Voice (v92) PCI | $19.99 |
| US Robotics 56K Int. PCI WinModem / Hardware | $29.99/$79.99 |

## Premier Cases

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|---|---|
| Economy Mid Tower Case w/ 6 Drive Bays (ATX) | $24.99 |
| Premium Mid Tower Case w/ 6 Bays (ATX) 300W | $74.99 |
| Enlight Desktop Tower Case w/ 7 Bays (ATX) | $89.99 |
| Enlight Mid Tower Case w/ 7 Bays (ATX) | $69.99 |
| Enlight MicroATX Tower Case w/ 6 Bays (MATX) 200W | $69.99 |
| Enermax CS-3051L Mid Tower Case w/ 10 Bays (ATX) | $89.99 |
| Nest Tower Case w/ 7 Bays (ATX) 300W Power Supply | $99.99 |
| ADpen Full Tower Case w/ 10 Bays (ATX) 300W | $110.99 |
| Chieftec ATX-03B Aluminum & Lexan Case (ATX) MULTI COLOR | $194.99 |
| *Lian-Li Case of Thermaltake & Lian-Li Availability - Pricing Online* | |
| Thermaltake A3000 Steel Tower Case w/ 10 Bays (ATX) | $194.99 |
| Thermaltake A3000 Steel Tower Case w/ Window (ATX) | $194.99 |
| Thermaltake A3000 Aluminum Tower Case w/ 10 Bays (ATX) | $294.99 |
| Thermaltake A8000A Aluminum Tower Case w/ Window (ATX) | $294.99 |
| Thermaltake Xaser III V1000C Steel Dual ATX Case | $274.99 |
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| Lian-Li PC-61SB Aluminum Case (ATX) | $249.99 |
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| Lian-Li PC-70 Full Tower Aluminum Case (ATX) | $349.99 |
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| Economy 350W Power Supply | $24.99 |
| Cyberzone 300W Power Supply w/ 2 fans | $49.99 |
| HEC Hipro 300W Power Supply | $49.99 |
| Enlight 360W Power Supply | $64.99 |
| Enlight 420W Power Supply w/ 2 fans | $74.99 |
| Enermax 460W Power Supply w/ 2 fans | $149.99 |
| Vantec 520W Black Aluminum Power Supply | $149.99 |

## Premier Barebones

| | |
|---|---|
| Shuttle SS51G (Socket 478) w/ ES661 Chipset | $249.99 |
| Shuttle SB51G (Socket 478) w/ Intel 845PE Chipset | $194.99 |
| Shuttle SN41G2 (Socket A) w/ Nforce2 Chipset | $194.99 |

*Barebone Accessories*

| | |
|---|---|
| Shuttle PCI Parallel Port | $14.99 |
| Shuttle PRO Carrying Bag | $24.99 |
| Shuttle PC16 Internal USB 6-in-1 Card Reader | $14.99 |

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# A toothbrush for the serious

By ANDREW MOORE-CRISPIN

### Say goodbye to Bluetooth

Business travelers with a taste for the bizarre and a foul taste in their mouths from airline dishwater (read: Coffee) will be interested to hear of the latest innovation to come out of the land of the rising sun.

A USB toothbrush has been released to Japanese consumers. No word on how long it might take for this innovation to reach Western soil.

The electric toothbrush plugs into a USB port, and is being marketed to business travelers with a notebook computer. However, while it draws power from the USB port, no computing is actually involved – in other words, no detailed logs and pie charts detailing your brushing habits and no pop-up windows warning you that it's been 12 hours since you last brushed your teeth and that your breath is probably getting a little funky.

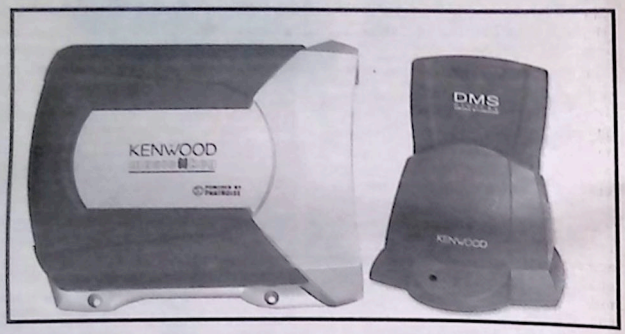
A similar product also currently available only in Japan is the USB coffee warming mug.

It is unclear whether Windows 98, with its lackluster support for USB devices, will require a driver download for either of these products.

The USB toothbrush retails for 1,280 Japanese yen, about $16. No price could be found for the mug.

### For the automobile audiophile

Getting MP3s from your home computer to your car has traditionally been difficult; too difficult, in fact, to make it practical.




Traditionally, automobile audiophiles would have to have a degree in computer engineering to develop a homebrew solution or deal with removable hard drives, multiple expensive MMC cards, burning MP3 CDs or inferior quality from a portable MP3 player using a tape deck adapter.

Kenwood, already famous for car audio, has a solution that makes you wonder why someone didn't think of it earlier.

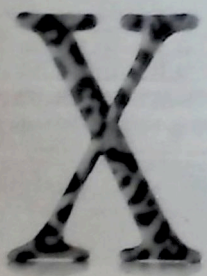
The Music Keg MP3 player functions in much the same way as other car MP3 players and is wired into the in-dash deck. However, rather than having to control the MP3 playback on the actual player, as many solutions require, the Music Keg acts like a CD changer. Kenwood says the Music Keg's up to 999 playlists will be recognizable by most any deck that can control a CD changer.

Other in-car MP3 players have users removing the hardware from the car to get new files on them or removing hard drives that require users to install a docking bay in their home PC. The Music Keg uses removable, proprietary data cartridges, currently only available in 10 and 20 GB capacities. These cartridges (kegs?) are easily removed from the Music Keg and users can upload songs to them with the included PC cradle. With all this obvious innovation though, we have to wonder why the PC cradle connects via USB 1.0, without even offering a USB 2.0 or FireWire option. Be prepared to wait a while; 20 GB of data is going to take a long time to upload.

### Digital instant, the next step

Polaroid instant cameras were, until digital came into its own, the only option for anyone wishing to take a picture and be able to see it a short time later.

Pictures taken on a Polaroid camera – or cameras from any of the other manufacturers that tried to get a piece of the instant pie – would take about a minute to develop, giving users access to prints without having to take a roll of film to the photo lab.

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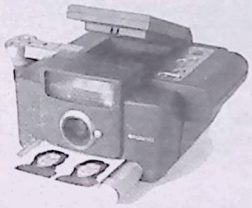
Now, in an attempt to reclaim its spot at the top of the instant printing category, the company has released a digital camera that offers instant prints for the passport photo market at the Photo Marketing Association (PMA) trade show in Las Vegas.

The Polaroid Digital MiniPortrait Camera will be available in May and will carry a suggested retail price of US$1,199. It features an on-board thermal printer capable of one-up image printing (one image on a sheet) as well as two-up – required for passport and citizenship photos – four-up and six-up printing.

The MiniPortrait camera also sports an over-sized 4-inch LCD preview screen to allow customers to complain about an image before it's printed, sure to be a popular feature with anyone who has dealt with taking passport photos before.



**Mass media?**

Also at the PMA show, Lexar Media announced the highest capacity CompactFlash card to date.

These new CompactFlash cards are available in two flavours, one, a Type I card, with a 2 GB storage capacity and the other, a Type II card, with a whopping 4 GB of storage.

While 1X (meaning 150 Kb/sec) is typically used as a measure for CD-ROM, being the read speed of the earlier drives, Lexar is using the measure for its CompactFlash cards, claiming a sustained write speed of 32X or 4.8 MB/sec.

The company says its new CompactFlash storage cards are capable of using Write Acceleration (WA) technology, which means faster sustained read and write speeds on cameras that support the technology, like Nikon's D1x, D1h and D100 cameras. These three cameras are professional models, and with Lexar's new cards retailing for US$699.99 and US$1,149 with a storage capacity greater than most any consumer would need, they are aimed at the pro photography market. ◆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AMD XP 1700 128mb-30gb 56k-10/100-CD Kybd/Mouse/Spk $429
INTEL PIII933 128MB-30GB CD-10/100 SOUND/VIDEO $459
Celeron 433 Intel 64mb-4gb CD-1.44 $99-
PII400 64mb-4gb CD-1.44 $259 Incl. 17" Monitor
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Compaq PII350 128mb - 6.4gb CD-Sound-10/100 $155-
128mb-13gb PIII550 CD-10/100 $279-
QuickCam Express USB $35-
Classic 107 Ps2 Keyboard $9.99
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# Getting vinyled

## The biggest draws for those with a vinyl fetish ...

By ANDREW MOORE-CRISPIN

### Drop the virtual needle

The biggest draws for those with a vinyl fetish might belong to a rather large dominatrix. The biggest draw for those with a vinyl (as a method of distributing music) fetish might be the ambient noise and warmer, more human feeling of a vinyl record.

Proponents of the vinyl record say digital recordings and the methods of their distribution, be it MP3, CD or MiniDisc, are sterile and lack the human feeling of a vinyl record.

To that end, Ofer Springer, a computer hobbyist, came up with a simple computer program that can take a scanned image of a vinyl record and act as a sort of record player needle, making a digital representation of the analogue media.

Springer is offering the source code on his Web site, Digital Needle (www.cs.huji.ac.il/~springer/) and admits that it is "both straightforward and crappy" in a response to some SlashDot (www.slashdot.com) users saying the Virtual Gramophone is a hoax.

Springer has some sample recordings and decodings taken from the vinyl record scans available for download on the Virtual Needle site. Most of the MP3 and WAV files offered require a very good ear and a bit of imagination to hear the connection with the source record, Vivaldi's *The Four Seasons*.

Springer scanned the record on a flat bed scanner in four parts (as an LP is too large to fit on the scanning glass), stitched them together in an image editor and used his Virtual Needle software to extract what is almost recognizable as music.

### IT workers feeling anxious

While matchbook and television advertisements promise personal fulfillment, more money and as a result, less stress with a new IT career, it doesn't seem to be panning out that way.

A report issued by Warren Shepell Research Group suggests that while technology workers are generally young and well paid, they are more susceptible to being laid off as a result of corporate downsizing and, while some are employed full-time, the industry as a whole seems to prefer hiring on contract.

The report, titled "Organizational Health and Wellness Trends in Technology," also suggests that tech workers are more likely suffer from anxiety ... perhaps as a result of layoffs and contract work, though the study doesn't suggest a connection.

Those in the technology sector also adhere to the "work hard, play hard" school of thought, the study suggests, and are more likely than the national norms to smoke and have substance abuse problems.

It goes on to say that, as a generally younger work force, the sector fosters a progressive and respectful work environment where racial and cultural diversity are less of an issue than is the norm.

To see the five-page report, go to www.warrenshepell.com/research.

### Wireless hotspots a hot topic

Intel is rolling out what the company is calling its biggest innovation since Pentium was released a decade ago.

The company kicked off its Centrino initiative with media events worldwide showcasing the new technology.

Centrino is Intel's new micro-architecture that incorporates WiFi (802.11b) into the processor core, allowing users to go online in any WiFi enabled Internet hotspot.

In line with the Centrino launch on March 12, Intel revealed its list of wireless enabled hotspots across Canada and the world, which can be viewed on Intel's Web site (www.intel.ca/product/mobiletechnology/hotspots/index.htm).

Toronto's list on the Intel site consists of 12 hotspots at the time of writing, including Toronto Union Station, Pearson Airport and the Croissant Tree, which is in the same building as the *Toronto Computes!* offices. In reality, there are already more than 12 hotspots in Toronto.

Industry analyst group IDC predicts there will be more than 118,000 wireless hotspots worldwide by 2005.

Intel says its Centrino processors are designed to use less battery power without sacrificing speed and make for thinner, lighter notebook designs.

Pat Gelsinger, Intel's chief technology officer, says we're still years from seeing his vision for 1-1-1-a notebooks (one inch, one day, one pound, always connected), but that Centrino is a step in the right direction.

Major notebook manufacturers, including Dell, Acer, Fujitsu, MDG Sony, IBM and TTX, were on hand at the media event to showcase their notebooks using Centrino technology. ◆

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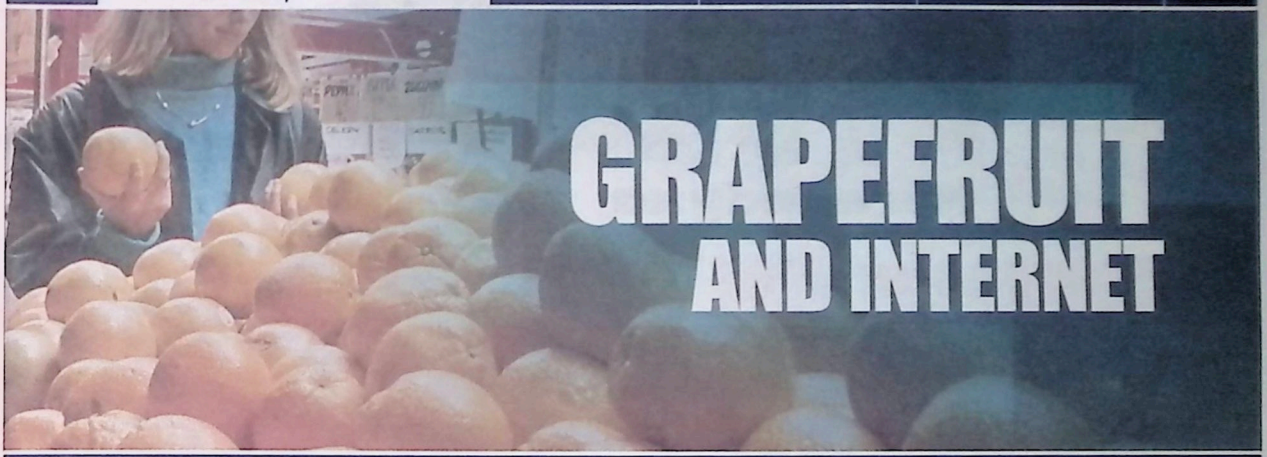

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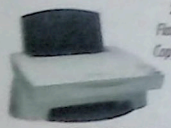

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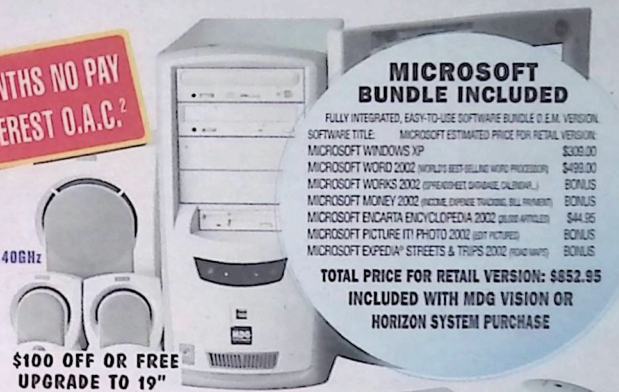

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# A question of options

By MARA GULENS

It's a question every potential digital camera owner has to grapple with: Once you've got the camera, how will you get to the prints? Do you buy a photo printer and print in the comfort of your own home? Do you submit the images to a traditional photo lab and have someone else do the work for you?

For us children of the print photo age there's a third alternative that's hard to accept, but that's catching on fast: Forget printing entirely. Create virtual photo albums, upload images to the Web, hang tight and wait for handheld media readers and flat screen monitors that let you display photos like paintings.

But for now, most of us still want some form of print that we can share. A framed 8x10 is still considered a gift from the heart and besides, Grandma can't do much with a photo CD. While we want our photos to look great and print fast, few of us want to spend hours messing with colour adjustment and red-eye correction. We're buying digital cameras because we want in on the advantages of this new method of photography, but that doesn't mean we want to give up the easy print process we've grown accustomed to.

### What the printers have to say

Lori Abbott, category business manager for digital imaging for Hewlett-Packard Canada, says "people like the convenience of printing at home." Photo printers give instant gratification and allow photographers to be selective and "expand the possibilities of what they can do with images."

That said, people who print at home are not printing 12 or 24 pictures, they're printing one or two. "People who want to print more pictures will go to labs, because at home right now they are printing the one-offs," says Abbott.

Although Abbott says 35 mm cameras won't entirely disappear, she says people are migrating to digital cameras because they give users more control and allow for greater and easier photo sharing.

All right, so what about the relative of mine with concerns about a photo printer purchase? Won't the photos fade quickly? Is it worth the investment if she only prints a few images a month?

Abbott says new HP photo printers offer fade-resistant prints, better quality and better true-to-life colour than traditional silver halide prints. Moreover, digital images can be archived on a CD – which is an expensive option at a photo lab.

"The important thing to remember is that a photo printer is a versatile printer," she says. Its use is not restricted to photo printing – it can also be used for projects and presentations. That's a good thing to note because really, do you need a printer if you're planning to print only 24 images a year?

Over at Epson Canada, Tricia Pantry, product marketing specialist, says printers are already producing digital lab quality prints. But the three most important reasons why digital camera owners want a home photo printer is instant gratification (being able to print right now), personalization (create your own digital darkroom and work with image adjustment) and convenience (you don't have to go to the photo lab).

According to Pantry, more people are taking more pictures than ever before. And, says Abbott, people who may have been intimidated about shooting images previously will now do so. But this all still begs the question – what if photo printing isn't really as simple as the photo printer people would have us believe?

A personal anecdote to make the point. Both my husband and I are comfortable with technology. Yet it has taken us months to figure out how to correct colour errors, use ICC colour profiles and it's taking us equally long to correct the images themselves. That's all before even getting to the print stage. Once we do print, how long do we want the prints to last? This last question could be the topic for another article: Maybe we don't need eternal prints anymore. After all, "one photo does not equal one print," says Pantry. While printing a photo has gotten easier, getting the image you print to look like you want isn't easy by a long shot.

According to Abbott, people tend to buy printers two to eight months after the purchase of their camera.

### What the photo labs have to say

You've probably seen the photo lab ads promising customers they'll do it better, quicker and with less hassle. Plus, they offer archival prints.

Future Shop's Futurephoto.com senior manager Heather MacKenzie says she doesn't see the choice being between photo printers or labs, because "consumers will do both," she says. While printing at home is quick and "then and there," it's more costly and takes too much time when you have to print, say, 20 images from a recent trip.

As the digital camera market moves more mainstream, she also says it's not just do-it-yourselfers wanting to print, but consumers who like the convenience of having someone else do the work for them. While home printers are getting better, they're still not archival and once you've run through one print cartridge set and a package of good quality photo paper, you realize the cost.

That's not to say photo labs are what they used to be. "Price, quality and convenience" is being redefined. It's not just about that anymore – although it is, with new parameters. A big percentage of Futurephoto's business is generated online as customers upload images to the Web, order online and share prints over the Internet.

### The future

So what's the future of photo printing?

"With technology, things move so quickly it's hard to predict what will happen in six months," says Richard Greenberg, manager of Toronto's Kornercolor photo lab.

Greenberg says the current option is investing in a $1,500 archival printer, or printing on $100 to $200 inkjets where the photos will not last. Labs, on the other hand, offer "the ability to print in a cost effective manner something that will last."

But things change rapidly. Software programs are becoming more intuitive, and "as the technology improves home users can make a cost effective print that lasts." More key, the generation of kids growing up with digital movies, images and music will have a much easier time working with digital manipulation programs. By the time today's infants start shooting pictures, "they won't know the old way," Greenberg notes.

So, check your finances, weigh in what you consider convenience and quality, consider how much control you want and have a look at long-term goals. At this point there's no one option, and the future is still not quite in focus.

"We're at the beginning of the digital era," says Greenberg. "It is really the true start now." ◆

## Digital photo finishing – at the lab

Here's a new twist in the rapidly changing world of digital photography. HP and Phogenix are set to test market the world's first Digital Inkjet Minilab in nine of Canada's Future Shop retail outlets.

DFX digital minilabs will be integrated with Future Shop's photo finishing management system. According to Phogenix's Web site, the DFX "is a low-cost, scalable inkjet system ready to meet today's digital output demand, yet flexible enough to grow as the digital market expands." DFX input can include Internet digital file transfers, 35 mm film and PCMCIA cards; ouputs can be standard prints, CD-ROMs, photo IDs and calendars.

Future Shop's interest stems from a commitment to exploring new directions in digital photo finishing and an interest in cutting costs — including alternatives to traditional silver halide photo finishing.

What comes to mind immediately is how this will impact consumer confidence in digital photo printers. If even photo labs start printing digital, well, that's yet another reason to consider it.

—Mara Gulens

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# Show your pictures off on the Web

By LIZ CLAYTON

Sharing your photos over the World Wide Web is incredibly easy these days – whether you're the wizard of HTML or a technical novice.

While seemingly infinite options exist for getting that perfect shot of Fluffy onto the Internet, the easiest method of sharing pictures is through the use of online photo albums. There are at least a dozen Web sites offering photo album services, which range dramatically in capability and quality.

Users of MSN or Yahoo! may have noticed that photo albums are built into their one-stop environments – but Yahoo! Photos and MSN Photos both fall short in a few key ways. Both service providers limit your free storage capacity to a measly 30 MB – though they're happy to charge you a fee for increased storage. While Yahoo! offers some nice features – notably the option to send photos as Yahoo! Greetings, and the strangely rare feature of allowing you to write captions, its functionality is limited. Yahoo! Photos is, in fact, back-ended by Shutterfly's excellent services, which we'll get to in a moment.

Predictably, Microsoft's entry into the online photo album world is plagued by proprietary issues. MSN Photos works only with Internet Explorer and only on Windows machines. So much for sharing photos with cousin Trixie's iMac.

Thus we are left with the two rival kings of online photo sharing – Shutterfly and the Kodak-owned Ofoto. Shutterfly and Ofoto offer very similar services. On the Web side, they allow you to create and edit photo albums, and each site offers unlimited storage capacity for your images. Both sites allow you to share particular albums with an e-mail list, which you may choose to generate from your personal address book stored on the site. You, or those with whom you share your albums, may then choose to order prints or other custom printed items from the site. Prices are competitive – US$.49 for a 4x6 print at Ofoto, and between US$.42 and US$.49 at Shutterfly depending on the quantity ordered. Unfortunately, one of the features that makes both of these Web sites attractive to non-digital camera owners is unavailable to Canadian residents: Unless you live in the US, the option of mailing in unprocessed film or a CD, and having those images placed in your album, is unavailable through either service at this time.

Shutterfly seems to offer slightly better services in the printing department, but for simple online viewing and sharing, Ofoto and Shutterfly are pretty evenly matched.

The upload interface is similar across the various photo sharing sites. An album is created, and then the user browses through his or her hard drive in a rather slow and sometimes unsteady upload process, which typically allows the upload of between one and five photos at a time. Both Shutterfly and Ofoto offer free downloadable applications or drag-and-drop utilities to speed this process, though you'll find Ofoto's doesn't support Mac OS X.

Both sites also offer limited photo editing capabilities – cropping, red-eye reduction, that sort of thing – either within the external software or through sometimes-dodgy Web interfaces. Shutterfly's editing interface seems just a cut above Ofoto's, but keep in mind the site works best only with the latest versions of Explorer or Netscape.

With these free tools, it's easy for anyone to start publishing their own photos on the Web without ever touching *Photoshop* or a line of HTML code. The biggest drawbacks for some users may be the abundance of advertising – these sites rely on selling prints and processing to cover costs, though it's certainly quite possible to get a great deal of mileage out of them without paying a cent. However, for newcomers as well as seasoned digital photographers, the simplicity of online photo albums remains nothing less than a boon. ◆


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FEATURE

# How to: Scan prints to archive

By ANDREW MOORE-CRISPIN

Digital doesn't have to come at a sacrifice to the years and years of memories stored by more traditional means.

We all likely have a box full of old pictures sitting in storage, just waiting to be organized and preserved. However, it seems that the time to organize and preserve never comes around.

Quality scanners used to be pretty much exclusive to graphic designers and the like. The delicate equipment was very expensive, slow and unreliable, as the lights would burn out constantly. As with most technology, the price came down as the technology matured and became smaller, more reliable and faster. Today, a good quality consumer level flatbed scanner can be had for under $200, sometimes well under.

Archiving family photos digitally is a good way to preserve your memories, though it is no easier than organizing the aforementioned box of photos. However, getting a scanner and some archival software might be just the motivation needed to get the job done.

### Scanning options

There are a number of options available when looking at consumer level digital scanners: Simple flatbed; all-in-one scanner, printer, copier and sometimes fax machine; negative scanner and dual lamp flatbed. Scanners also come in a variety of sizes and formats; from business card scanners that claim to double as small photo scanners, to 4x6-inch, 8.5x11-inch and 11x14-inch models. The most common scanning platen dimension in consumer level scanners is the standard paper (8.5x11-inch) size and unless you plan on scanning legal size documents often, anything over this size is unnecessary. Also, anything smaller isn't going to be functional and doesn't present a substantial cost savings over other desktop scanners, so should probably be avoided. Anything too large to fit on the scanning bed can be scanned in pieces and stitched back together with image editing software.

Some scanners offer negative or slide scanning capabilities with a second light that shines from above to get an accurate scan. There are also after-market add-on negative and slide scanning adapters that will sit on the scanning bed and reflect the light coming from below so that it shines through the negative or slide for transparency scanning.

### Getting around to doing it

The concept of archiving all of your old family photos on the PC or on CD-R, where they will be preserved for a long time to come, has probably crossed your mind.

Scanning each individual photo will take a long time, but if you already own a desktop scanner and don't plan to upgrade to an archival scanner anytime soon, it becomes a matter of biting the bullet. There are, however, ways to improve the workflow (while it may be a labour of love, it's still a lot of work).

Get organized before starting: Rather than starting with the first picture in the box, organize the images into like-size stacks. Despite the fact that we're going digital because we'll never get around to organizing the piles of pictures, this will make the work go faster.

For example, when working with a 4x6-inch print, after acquiring the scanned image, the marquee will stay in the same place. If you put the same size picture in the same place on the scanning platen, you will eliminate the preview step of the scanning process. Since all corrections should be done in image editing software as opposed to the bare bones scanning utility, the preview step is largely unnecessary in this case.

As well as organizing the pictures before scanning, it's important to organize their digital representations into like-size piles on the hard drive too. If the pictures are organized by size, we can create macros in image editing software to cut down on a lot of the work.

Get an archival scanner: Some manufacturers have come out with scanners that will accept a stack of 4x6 prints into an auto feeder and scan them with no user intervention required. If you're in the market for a flatbed scanner and have been planning to archive your family photos for posterity, the extra money that this feature demands might be well worth it (see "Scanner makes a snap out of archiving," *Toronto Computes!* March 2003, archived on www.canadacomputes.com).

Think prints: The purpose of scanning all of your photos to save for the ages is defeated if the quality of the archived

## Optimizing images for printing

It's best to allow a resolution of 300 dpi for the finished image, to be sure your file has plenty of information to print well. 200 dpi is the standard resolution for printing, but bringing images in at 300 dpi gives you some leeway for making the image larger or doing other digital darkroom operations like taking a tighter crop. Images should be in CMYK (cyan, magenta, yellow and black) colour mode for a more accurate translation to your photo printer.

Before scanning a photo, use an anti-static cloth to wipe the scanning glass and the emulsion side of the photo. This is especially important when enlarging small prints, as even the tiniest speck of dust will be magnified and can render the scan useless.

Colour balancing can be hit-and-miss when translating from the screen to your printer. Often, a monitor colour correcting utility comes bundled with image editing software or can be purchased separately, with the recommendation that you ensure your monitor is accurately representing the result you will get from the printer every two weeks or so. There are also colour balancing software/hardware bundles, usually in the form of a puck that sticks to the face of your monitor and makes corrections to the colour representation on screen. This solution is expensive and, while it would definitely be nice to have in the digital darkroom, is by and large unnecessary at the consumer level. Balancing the monitor using a simple and inexpensive software solution before a stint of image editing, and making a test print will do the job.

*—Andrew Moore-Crispin*


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images isn't sufficient for printing. While the file sizes will get quite large (for example, a 4x6-inch uncompressed TIF file at 300 dpi in CMYK is about 8 MB), don't scrimp on the resolution. Viewing the images only on screen might get the point across, but a higher resolution than is required for on-screen viewing is necessary if you might want to make prints at a later date.

Create actions: Take a few minutes to program macros into your image editing software to cut down on the amount of actual work you have to do. For example, in *Photoshop*, the Actions window can be used to record a set of step-by-step photo editing actions. Using our 4x6 example again, *Photoshop* can be told to re-size the file to 4x6 inches at 300 dpi, auto level, auto colour balance, convert to TIF, save to a specific location and any other editing functions you want it to perform. The beauty is that, once the scanning is done, you can hit a button, walk away and let your image-editing software do the work. Alternately, some programs allow you to program a series of actions and then follow them through step-by-step by hitting OK after each action. This allows you to make sure everything is going right, which it won't always. Auto-levelling and auto-balancing can only do so much, and while they generally do a good job, neither can be entirely trusted.

Think assembly line: Rather than scanning each picture individually, image editing and archiving it, do each step many times in a row on all of your pictures. This way, things will go faster and, while it may be mind-numbing, it will be a more effective use of your time.

Get organized after the fact: All the work organizing piles of family photos for digital archiving is for naught if the pictures aren't organized for easy access later on your hard drive. Create folders on your hard drive for image categories. Group images with a common element in one folder, so you'll know where to look for them later. For example, create a separate folder for wedding pictures, vacation pictures or seasonal pictures, or group together by approximate year.

Once these folders are created, burn some CDs of your images. Avoid the temptation to jam as much as possible on each CD-R. Spanning one folder over multiple CDs is fine, or putting multiple smaller category folders onto one CD-R. However, the order can start to break down and the archive CDs can get confusing if maximizing data space is given priority over organization. ◆


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CREATIVETECH

# Adventures in digital video: Rock steady, baby – or not

By LEE RICKWOOD

Last time, we spoke about camera composition and framing. The appropriate spacing around key picture elements helps make your image more inviting and engaging.

Head room (the space from the top of a subject's head to the top of the frame) is important – but always follow your nose and be adventurous.

Of course, it's hard to maintain compositional balance if your camera's not balanced. If it's swinging wildly, so will the image. You may want that – or you may want to look at camera support equipment.

Tripods, monopods, steadicam-type technology – even built-in steady shot features – can help if you know how to best use them to your advantage.

When shooting video, there are two sources of movement: The subject and the camera. Usually, you keep the camera steady and allow your subjects to move. Perhaps you're videotaping a baby playing on the floor. Compose the shot and let the baby go.

But if the baby moves out of the frame, you follow the motion with a pan, moving it from side to side. It's one of the most common camera moves, but in most cases, you must use some kind of camera support gear to make it smooth.

After your camera, your most important video investment should be a good tripod, one that supports the full weight of your camera without wiggling, shaking or collapsing outright. That pretty much rules out inexpensive still camera tripods.

Video tripods support the camera on three legs. Usually, the legs are extendable so you can raise or lower camera height when setting up the tripod. Three-stage legs (that extend using three interconnected sections) are usually sturdier than two-stage. Lightweight carbon fibre and rugged anodized aluminum are popular construction materials.

Don't forget about your tripod's feet. Some slip into a fixed base of some sort, so the legs don't slide apart on a slippery surface like ice or linoleum. Some tripod legs attach to a movable base on wheels, called a dolly, so the camera and tripod can be easily and smoothly moved as a unit (truck side to side, or dolly in and out), even while shooting.

At the other end of the tripod, a fluid head is essential. The fluid head connects to your camera or camera plate. It moves on a cushion of oil, resulting in a very nice pan. The oil or other liquid smooths out bumps and evens out motion. Some tripods are adjustable, to add or subtract resistance on camera motion.

Monopods are single-stem camera supports; easy to carry, quick to setup, they provide stability above and beyond hand held, but they will not be as sturdy as a tripod.

Steadi-cam or tracker-type support gear lets you "wear" your camera – and create terrifically smooth tracking shots that follow characters or action almost anywhere. The original equipment required thousands of dollars, a lot of set-up, very specific operator training and more than a few good muscles. Significantly scaled-down versions are on the market now that still give enormous creative latitude to the camera operator – or wearer.

So pan your camera left and right, tilt it up or down, or combine the moves. But unless you have a good reason to do otherwise, rock steady is the best way to go. Of course you can shoot good video hand held, especially if the camera has good electronic or (even better) optical image stabilization. But for shots with a lot of zooming or action, a tripod is best.

Rules, as we've said before, are to be learned, understood and then broken. ◆

# Media levy: Hearings end, saga continues

## Hopefully, every computer user in the country is aware of the Copyright Board of Canada hearings this past February

By FRANK LENK

These hearings were held to determine the revised amounts that would be paid to the music industry by purchasers of blank media over the 2003-2004 period.

Although there was a big buildup, they ended without fanfare. It's hard to tell how things went, but the recording industry may be ahead on points.

"I believe we presented our case more effectively than our opponents," says a confident David Basskin, president of the Canadian Musical Rights Reproduction Agency (CMRRA) and a director of the Canadian Private Copying Collective, which administers the controversial blank-media levy program.

"So often in litigation, it's not who's got the better case, but who is better prepared," he adds.

The chief opponent at the hearings was the Canadian Storage Media Alliance (CSMA), composed of companies such as Apple Canada and Hewlett-Packard, and organizations such as the Retail Council of Canada (RCC).

Jacquie Famulak, general counsel for Apple Canada and a spokesperson for the CSMA, confirms that the five-member Copyright Board panel heard presentations from lawyers representing CSMA, plus a separate delegation from the RCC.

Although hearings are open to the public, Basskin noted that almost no visitors attended, with members of the press particularly conspicuous by their absence.

The Copyright Board is not constrained to any timeline, but Famulak predicted that a decision would probably be announced by the end of March. However, it might not come until April or even May, and a final outcome could be further delayed if any of the concerned parties decides to appeal.

### Adding it up

Although the final levy amounts are now up to the Copyright Board, it's notable that the CPCC made some late amendments in its requested rate schedule, in an apparent response to the chief criticisms leveled against its originally requested levy rates.

Most notably, the CPCC reduced the two most controversial rates: Those on memory cards "capable of being used in an MP3 player" (but also widely used in digital cameras and other devices) and those on hard drives built into MP3 players.

The originally-requested $21 per gigabyte levy on hard-disk players would have obliterated the (legitimate) Canadian market for these products by doubling their retail price. The latest CPCC rate schedule requests only about half the original base rate and adds a diminishing scale for extra increments in disk capacity.

It's a complicated calculation (the extensive use of retail-style ".98" and ".99" amounts seems particularly cool), but it looks like a 20 GB player would now incur a levy of $112.82, rather than the originally-specified $420. A major improvement, to be sure, but still a hike amounting to about 28 per cent on the (pre-tax) retail price.

Secondly, for large companies resentful of paying a levy on legitimate data storage media, the CPCC has offered to expand its "zero-rating" scheme to include most types of technology companies.

Unfortunately, this will benefit only the largest organizations. To qualify for zero-rating, companies would have to register with the CPCC before purchasing discs levy-free from specific authorized sources and would have to file detailed annual reports of quantities, sources and uses of the media.

In any case, the CSMA isn't mollified. "You can zero-rate as many people as you want, but haven't eliminated the fact that the laws need to be changed," says Famulak.

### Paying it out

Perhaps not coincidentally, the CPCC announced just before the Copyright Board hearings that it had finally started distributing the levy funds it has collected over the past several years.

According to Basskin, more than 50,000 people will be paid for the 2001-2002 period. However, the current installment comes to only about $7 million, out of the nearly $30 million currently in the CPCC coffers. "We took a lot of criticism for the delay," admits Basskin.

Paying out fairly is difficult. "It became a kind of a King-Solomon-cut-the-baby-in-two approach," says Basskin. But he staunchly defends the CPCC use of both airplay and album sales data as being the best available compromise.

"You have to assume there's a relationship between what is popular and what is being copied," he says, dismissing out of hand any suggestion that radio play might be financially influenced by music publishers themselves, and hence an inappropriate gauge of popularity.

Regarding levy pay-outs to non-Canadians, Basskin makes no apologies. "Canadians benefit from similar levies in forty other countries," he points out. "If you start discriminating on the basis of national origin, it will quickly spread to other areas where Canadians benefit."

For consumers who may be concerned about levy funds leaching to the U.S., Basskin suggests a simple recourse: "Don't buy any products done by Americans."

### What's next

After the Copyright Board decision is handed down, the Canadian Coalition for Fair Digital Access (CCFDA) will take over the long-term fight for copyright reform in general.

"We're continuing to meet with various officers in Ottawa to demonstrate that levies on blank recordable media are unfair," says CCFDA spokesman Allan Reynolds.

He adds that a parliamentary committee will be looking at various aspects of Canadian copyright law, under the aegis of Industry Canada and Heritage Canada. This group will probably start meeting within the next month or two.

"The times are changing, and there are going to be different ways of getting [content] to people," predicts Famulak. "The Copyright Act needs to change with the times." ◆

# Digital Words: Making sense of dots

By JEFF CHAPMAN

This magazine is putting one over on you. All the delicately shaded images with all their apparently subtle and seemingly infinite tints of grey, are actually just hundreds of tiny black dots. Peer at any of the images on these pages closely enough and you'll see. You may feel duped and swindled, but restrain your outrage: The publishers didn't really have any choice in the matter. Printers – finding it too troublesome and expensive to stock hundreds of barrels of differently shaded grey inks – take advantage of the notorious gullibility of the human eye and print the entire non-colour contents of the paper using only a series of black dots. When viewed from even a slight distance, our eyes blend these dots together so they appear as images.

The process by which a traditional black-and-white photograph is reduced from millions of shades of grey down to a single shade of black ink is called halftoning. Halftoning converts all the shades of grey found in a continuous tone photograph into tiny patterns of black dots and empty spaces. The fewer and farther apart the dots, the lighter the shade.

### Halftoning simplified

In the days before everything went digital, publishers were traditionally obliged to hand over their photographs to printers or service bureaus for manual halftoning with large halftoning cameras and special halftoning screens. These days, almost all publishers employ scanners and computers to handle halftoning themselves.

Your computer's postscript printer driver normally handles digital halftoning automatically, although some software (including Quark and Adobe products) will allow you to specify halftone settings yourself.

Most people using the major desktop publishing programs will never notice the program automatically handling the halftoning in the background, but it is possible to tinker with the default settings for better results. The setting you're most likely to want to pay attention to and adjust is the aforementioned screen frequency, which is usually measured in lines per inch (lpi). This setting specifies resolution in terms of the number of lines that the final output device can print on each inch of paper (line screen). Higher screen frequencies generally produce finer, more detailed final images, but unfortunately it isn't as simple as always using the highest possible screen frequency for the highest quality final product. If you specify a higher lpi than your final output device can handle all the extra pixels will be wasted at best or wreak havoc with your final output at worst.

### Paper matters

More importantly, printing too many dots on certain types of paper will actually produce inferior results. All paper soaks up a certain amount of ink, causing each dot printed to swell a little through a process called dot gain. Glossy paper has lower dot gain than standard uncoated paper, which in turn has considerably less dot gain than newsprint. Since dot gain makes each black dot a little larger, causing each image to appear a little darker, the greater your output paper's dot gain, the fewer dots you should send to the printer.

Glossy magazines can normally handle a screen frequency of around 133 lpi, whereas newsprint usually produces best results with around 85 lpi. Desktop computers and printers normally measure resolution in terms of dots per inch (dpi) rather than lpi, but calculating the number of dots per inch needed for a decent halftone is fairly straightforward. In cases where the final screen frequency will be 133 lpi or higher (a decent imagesetter and better-than-newsprint quality paper), the image resolution should be twice as high as the line screen (that is, a 266 dpi image is needed for a 133 lpi screen); in cases where the final screen frequency will be less than 133 lpi, the image resolution should be one-and-a-half times the line screen (that is, a 170 dpi image is needed for a 85 lpi line screen).

Desktop publishing software takes care of halftoning itself most of the time, but in some cases tinkering with halftone settings properly is essential to successfully tricking your readers into seeing meaning amid a sea of tiny black dots. ❖


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TOSHIBA SATELLITE 2750 $1499
INTEL P3 600MHZ/64MB/6GB/DVD/FLOPPY/56K/LAN/12.1" TFT
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INTEL P3 750MHZ/128MB/30GB/DVD/56K/LAN/14.1" TFT
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P3 1GHZ/256MB/ 30GB DVD/56K/LAN/WIRELESS LAN/14.1" TFT
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INTEL P3 1GHZ/128MB/20GB/DVD-CDRW/56K/LAN/14.1" TFT
TOSHIBA SATELLITE 1960 $2299
INTEL P4M 1.7GHZ/512MB/40GB/DVD-CDRW COMBO/56K/LAN/15" TFT
TOSHIBA SATELLITE 1905-S301 $2599
INTEL P4 2.0GHZ/512MB/40GB/DVD-CDRW/56K/LAN/15" TFT
TOSHIBA SATELLITE PRO 6100 $2599
INTEL P4 1.8GHZ/256MB/60GB/DVD-CDRW/56K/LAN/14.1" TFT
SONY VAIO FXA53 $1999
AMD xp1500+/256MB/60GB/DVD-CDRW COMBO/FLOPPY/56K/LAN/14.1" TFT
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FREE DVD/CDRW DOCKING STATION/WIRELESS LAN
SONY VAIO VX88P $2699
INTEL P3 850MHZ/256MB/30GB/56K/WIRELESS LAN/14.1"TFT
FREE DVD/CDRW DOCKING STATION
SONY VAIO GRX500 16.1"TFT $2899
INTEL P4M 1.8GHZ/512MB/40GB/DVD-CDRW/56K/LAN/16.1" TFT/WIN XP PRO
COMPAQ EVO N200C $1799
INTEL P3 700MHZ/192MB/20GB/56K/LAN/12.1"TFT/WMZK
COMPAQ EVO N600C 2YW $1699
INTEL P3/866MHZ/128MB/15GB/24XCD/FLOPPY/56K/LAN/14.1" TFT
HP OMNIBOOK OB500 $1699
INTEL P3 600MHZ/128MB/10GB/56K LAN/ 12.1" TFT/WIN 2K
HP OMNIBOOK 6100 3YW $1999
INTEL P3 1GHZ/256MB/20GB/DVD/FLOPPY/56K/LAN/ 14.1" TFT/
WIN XP PRO/WIRELESS LAN
HP OMNIBOOK XE4880 $2399
INTEL P4 1.6GHZ/256MB/30GB/DVD/56K/LAN/ 15" TFT/WXP PRO
HP PAVILION ZE5170 $2499
INTEL P4 2.0GHZ/512MB/40GB/DVD-CDRW COMBO/56K/LAN/
FLOPPY/15" TFT
HP OMNIBOOK XE4500 F4881JP $2599
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15" TFT/WIN XP PRO/WIRELESS LAN
IBM THINKPAD R31 $1499
INTEL C1 1.3GHZ/128MB/20G/24XCD/56K/LAN/13.3" TFT
IBM THINKPAD A31 $1999
INTEL P4 1.6GHZ/128M/20G/24XCD/56K/LAN/14.1" TFT/
WIN XP PRO
IBM THINKPAD T23 3YW $2699
P3 1.13GHZ/128MB/30G/DVD/56K/LAN/WIRELESS LAN/14.1" TFT
IBM THINKPAD A31 $2799
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FUJITSU LIFE BOOK P2040 $2099
CRUSOE 800MHZ/128MB/20G/DVD-CDRW/USB EXT FLOPPY
56K/LAN/FIREWIRE 1394/10.6"WSXGA TFT/WIN XP HOME
FUJITSU C2210 $2399
P4 2.0GHZ/256MB/30G/DVD-CDRW/56K/LAN/15" TFT
FUJITSU LIFEBOOK P2120A $2399
CRUSOE 933MHZ/256MB/30G/DVD-CDRW/USB EXT FLOPPY
56K/LAN/FIREWIRE 1394/10.6" WSXGA TFT/WIN XP HOME
FUJITSU LIFEBOOK C2210A DVD BURNER $2799
INTEL P4 M 1.7GHZ/256 DDR/30GB/DVDRW-CDRW COMBO/
FLOPPY/56K/LAN/14.1" TFT/FIREWIRE/WIN XP HOME/USB2.0
FUJITSU LIFEBOOK S6010 $2799
P III M 1GHZ/256MB/30GB/DVD-CDROM/56K/LAN
WI-FI WIRELESS LAN/FIREWIRE/13.3" TFT/ WIN XP HOME
ADVANCE Free Printer Z35 Intel P4 1.8GHZ (NOT CELERON) 256MB DDR RAM PC2100 20G HD ATA133 56XCDROM NON-INTERGRATED 1.44 FLOPPY 10/100 PCI ETHERNET P4 ATX CASE/300W INTERNET KB/ MOUSE/ 1800 SUBWOOFER 2400dpi included $999
BEST BUY Free Printer Z35 Intel P4 2.4GHZ (533MHZ,4XUSB 2.0) 256MB DDR RAM PC2100 30G HD ATA133 48X16X48 CDRW 16XDVD ROM PLAYER 1.44 FLOPPY 32MB 4X AGP VIDEOCARD 16BIT 3D PCI SOUND 56K V.90 MODEM 10/100 PCI ETHERNET P4 ATX CASE/300W WINDOWS KB/ MOUSE 600W SUBWOOFER 2400dpi included $999
TWINS Intel P4 1.8GHZ (NOT CELERON) 128MB SDRAM PC133 20GB HD 56XCD ROM 32MB AGP VIDEOCARD NON-INTERGRATED 1.44 FLOPPY 56K MODEM 10/100 LAN 16BIT SOUND P4 ATX CASE/300W WINDOWS KB MOUSE/SPEAKER AMD XP2000+ 256MB/DDRAM PC2100 20GB HD 56XCDROM 32MB AGP VIDEOCARD NON-INTERGRATED 1.44 FLOPPY 56K MODEM 10/100 LAN 16BIT SOUND P4 ATX CASE/300W WINDOWS KB MOUSE/SPEAKER $499 Each
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21 CENTURY Free Printer Z35 Intel P4 2.53GHZ (533MHZ,4XUSB 2.0) 12MB DDR RAM PC-333 80G HD ATA133 48X16X48CDR-WRITER 16X DVD ROMPLAYER 1.44 FLOPPY ATI RADEON 9000 128MB DDR VIDEO CARD/TV OUT 18BIT 3D PCI SOUND 56K V.90 MODEM 10/100 PCI ETHERNET P4 ATX 300W CASE INTERNET KB/ MOUSE 1800W SUBWOOFER 17" LCD DISPLAY 2400dpi included $1499

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## CANOPUS NLE

NAB Special: Expires April 30th-2003

### STUDIO Storm-2

Real Time NLE, Compositing & DVD Authoring Power Station

Designed & Optimized for Adobe Premiere 6.5, AfterEffects, DVD

- New! Intel Pentium 4 2.53GHz 533MHz FSB
- 4X AGP, Ultra-ATA-100 Controller, USB-2 Ready
- Full Tower ATX AV-RAID Case with 300W Power
- 1 Gigabyte DDR Memory, 1.44k Nec Floppy
- 60GB Western Digital 7200 RPM Main Drive
- Matrox G-550 32MB 4X AGP Dual Head Video
- 19" Viewsonic P95F+ Perfect Flat 2048X1536
- New! Canopus DV STORM-2 Real-Time NLE Video
- Includes Adobe Premiere 6.5, Real Time MPEG-2
- DVD Encoding, Ulead DVD-Workshop Authoring
- 240GB AVRAID 7200 RPM 16-Hours Video Drive
- 32bit Sound System, Edirol MA-5A SWx5W Spkrs.
- New! Pioneer 105 Internal CD/DVD-RW Recorder
- Contour Design Space Shuttle A/V Jog Wheel
- Compaq PS/2 Keyboard & Optical Wheel Mouse
- Microsoft Windows XP Preinstalled & Configured

**$5,495** | **$215/month** 36-mo. Lease to Own Order Code #20885

## MATROX NLE

NAB Special: Expires April 30th-2003

### STUDIO ATX-100

Real Time NLE, Compositing & DVD Authoring Power Station

Designed & Optimized for Adobe Premiere 6.5, AfterEffects, DVD

- New! Intel Pentium 4 2.4GHz 533MHz FSB
- 4X AGP, Ultra-ATA-100 Controller, USB-2 Ready
- Full Tower ATX AV-RAID Case with 300W Power
- 512MB PC-266 DDR Memory, 1.44k Nec Floppy
- 60GB Western Digital 7200 RPM Main Drive
- Matrox G-550 32MB 4X AGP Dual Head Video
- 19" Samsung SynMaster 955-DF Flat .20mm dp
- New! Matrox RTX.100 Real-Time Video Editing Kit
- Includes Adobe Premiere RT 6.5, Real Time DVD
- MPEG-2 Encoding, RT Chroma Key, Real Time
- 3D Effects, Sonic DVDit SE DVD Authoring
- 160GB AVRAID 7200 RPM 12-Hours Video Drive
- 32bit Sound System, Altec Lansing Speakers
- New! Pioneer 105 Internal CD/DVD-RW Recorder
- Compaq PS/2 Keyboard & Optical Wheel Mouse
- Microsoft Windows XP Preinstalled & Configured

**$4,695** | **$183/month** 36-mo. Lease to Own Order Code #20883

## New! MINI - PC

IT'S ALL ABOUT STYLE & PERFORMANCE

### BOXTEA M-2003

Cutting-Edge High-Performance Multimedia Compact Station

FOR MORE INFO, VISIT: WWW.SMART-MACHINE.COM/MINI

- Genuine Intel Pentium 4 2.4GHz 512KB Cache
- Based on Latest Shuttle XPC Technology
- 533MHz FSB, 4X AGP, Hyper Threading Support
- 4 USB Ports, 2 Serial Ports, 2 FireWire 1394 Ports
- Shuttle G-Type Aluminum Case w/Front Panel
- 512MB 333MHz DDR Memory, 1.44k Floppy
- 80GB Western Digital 7,200 RPM Ultra-ATA HD
- Intel 845GE Performance 256-bit 3D Engine
- DirectX, OpenGL, Real Time DVD Playback
- 15" Viewable LCD Monitor, Contrast Ratio: 400:1
- 5.1 Digital Stereo Sound System w/SPDIF In/Out
- Altec Lansing Distinctive Styling Stereo Speakers
- 10/100 PCI Network Adapter, Intel 56K Fax/Modem
- LG 48X24X48 CDR-W / 16X DVD Combo Drive
- Compaq PS/2 Keyboard, Logitech Optical Mouse
- Microsoft Windows XP Preinstalled & Configured

**$1,695** | **$65/month** 36-mo. Lease to Own Order Code #20933

## MULTIMEDIA

UPGRADE TO DVD-RW RECORDER $199

### DIPEA GTX-2003

Cutting-Edge High-Performance Multimedia Power Station

BASED ON NEW INTEL CHIPSET 533MHz FRONT SIDE BUS SPEED

- Genuine Intel Pentium 4 2.53GHz 512KB Cache
- 533MHz FSB, 4X AGP, Ultra-ATA-133 Controller
- 4 USB Ports, 2 Serial Ports, 1 Parallel Port
- Elite Mid-Tower Case with 350W Power, Front USB
- 512MB 333MHz DDR Memory, 1.44k Floppy
- 80GB Maxtor Diamond 7,200 RPM, Ultra-ATA-133
- ATI Radeon 9100 128MB 3D Accelerator
- 4X AGP, DirectX, OpenGL, RealTime DVD Playback
- 15" Viewable LCD or 19" Flat CRT .20mm Monitor
- 32-bit PCI 3D Digital Stereo Sound System
- Altec Lansing AVS-300 Stereo Speakers w/SUB
- 10/100 PCI Network Adapter, Intel 56K Fax/Modem
- LG 48X24X48 CDR-W / 16X DVD Combo Drive
- Compaq PS/2 Keyboard, Logitech Optical Mouse
- Microsoft Windows XP Preinstalled & Configured
- Norton Antivirus 2003 Edition Preinstalled w/CD

**$1,595** | **$62/month** 36-mo. Lease to Own Order Code #20934

## HOME / OFFICE

UPGRADE TO 512MB DDR RAM $49

### DIPEA XPE 2003

High-Performance Multimedia System for Home and Office

LIMITED TIME OFFER! EXPIRES APRIL 30th - 2003

- Asus Main Board, Intel Pentium 4 1.6GHz CPU
- 533MHz FSB, 4X AGP, Ultra-ATA-133 Controller
- Elite Mid-Tower Case with 350W Power, Front USB
- 256MB 333MHz DDR Memory, 1.44k Floppy
- 60GB Maxtor Ultra-DMA-133 7200 RPM Hard Drive
- High Performance 64MB 4X AGP 2D Accelerator
- 17" LG Ultra-VGA, Low Radiation Color Monitor
- 32-bit PCI 3D Digital Stereo Sound System
- 120 Watts Powered Stereo Speakers
- 10/100 PCI High Speed Ready Ethernet Adapter
- LG 48X/24X/48X CDR-W w/Burn-Proof Protection
- Adaptec Roxio Easy CD Creator 5.1 & DirectCD
- Compaq PS/2 Keyboard, Logitech Wheel Mouse
- Microsoft Windows XP Preinstalled & Configured
  - Add Microsoft 2003 Software Bundle $129
  - Ms Word, Money, Encarta, Streets, Picture It.

**$995** | **$39/month** 36-mo. Lease to Own Order Code #20929

## Boosted by 8X AGP ATI FIRE GL X1

### OXYGEN 3D-XIGL

High-Performance 3D Graphics & Animation Power Station

Designed & Optimized for Maya, Houdini, SoftImage, 3D MAX, LW

- New! Asus P4G-8X Pentium 4 HT Main Board
- Intel Pentium 4 3.06GHz CPU with HT Technology
- 533 MHz Bus, 8X AGP, New Serial ATA Controller
- Full Tower ATX-II Case with 300W Power Supply
- 1GB Hyper DDR Memory, 1.44k Nec Floppy
- 100GB Western Digital 7,200 RPM, 8MB Cache
- New! ATI FIRE GL X1 Dual Head DVI, 8X AGP
- 128MB DDR, OpenGL, Up-to 2048 x 1536
- 19" Samsung SynMaster 955-DF .20mm dp
- Perfect Flat 1600X1200 Low Radiation Monitor
- 32-bit PCI 3D Digital Stereo Sound System
- Harman Kardon Stereo Powered Speakers
- 10/100 PCI Network Adapter, 56K Fax/Modem
- LG 48X24X48 CDR-W / 16X DVD Combo Drive
- Compaq PS/2 Keyboard & Optical Wheel Mouse
- Microsoft Windows XP Preinstalled & Configured

**$3,995** | **$155/month** 36-mo. Lease to Own Order Code #20887

## New! Now with Final Cut Xpress

### STUDIO AT-MAC

Mac Based Real Time NLE, DVD & Compositing Power Station

Designed & Optimized for Final Cut Pro 3 / Xpress, Express DV

- New! Apple PowerMac G4 Dual 1GHz System
- 133Mhz Bus, 4X AGP, Digital Monitor Output
- FireWire, 2 USB Ports, Ultra-ATA-133 Controller
- 1GB PC2700 DDR RAM, Up-to 2GB Supported
- 80 GB 7,200 RPM Ultra-ATA-100 Main Hard Drive
- 160 GB AVRAID 7,200 RPM Video Storage (8Hrs.)
- Nvidia GeForce 4 64MB Dual Display Video
- Canopus ADVC-100 Analog to Digital Converter
- New! Apple Final Cut Express DV Editing Kit
- Unlimited compositing layers, Integrated titling
- Internal Apple CD/DVD-RW Super Drive
- Built-In 16bit Stereo Sound System
- Harman Kardon Powered Stereo Speakers
- Apple Pro Keyboard and Pro Optical Mouse
- 56k v.90 Fax/Modem, GigaBit Ethernet Adapter
- Apple Mac OS X 10.2 Jaguar Installed

**$4,995** | **$195/month** 36-mo. Lease to Own Order Code #20889

## New!

### DUAL G4 1 GHz

Newl Fast Dual Mac System based on Power G4 at 867-MHz

This One Will Take Your Graphic Applications to the Next Level

- New! Apple PowerMac G4 Dual 867-MHz System
- 133 Mhz Bus, 4X AGP, Digital Monitor Output
- FireWire, 2 USB Ports, Ultra-ATA-133 Controller
- 256MB PC2100 DDR RAM Up-to 2GB Supported
- 60 GB 7,200 RPM Ultra-ATA-100 Main Hard Drive
- Nvidia GeForce 4 MX 64MB Dual Display Video
- Built-In 16-bit Stereo Sound System, FW800
- Internal Apple DVD/CD-RW Combo Drive
- Apple Pro Keyboard and Pro Optical Mouse
- 56k v.90 Fax/Modem, GigaBit Ethernet Adapter
- Apple Mac OS X 10.2 Jaguar Installed

- * Add 3 Year Applecare Protection Warranty $329
- * Add Extra 512MB PC2700 DDR SDRAM $129
- * Add 17" Apple Studio Display $1,049
- * Upgrade to NVidia GeForce 4 Titanium $549

**$2,295** | **$83/month** 36-mo. Lease to Own Order Code #20932

## Now with DVD-RW SuperDrive!

### POWERBOOK G4

Brand New Macintosh PowerBook G4 at 867MHz - 1 GHz

Cutting-Edge Portable High-Performance Multimedia Solution

- New! Apple PowerBook G4 867MHz System
- 12.1-inch TFT Widescreen Active-Matrix Display
- Supports millions of colors at 1024-by-768 pixel
- One FireWire, 2 USB Ports, One PC Card Slot
- 256MB 133MHz SDRAM, Up-to 1GB Supported
- 40 GB 5400 RPM Ultra-ATA-66 Main Hard Drive
- NVIDIA GeForce4 420 Go 32MB DDR RAM
- Built-In 16-bit CD-quality Stereo Output (minijack)
- Internal Slot-loading DVD-RW Super Drive
- Built-In 10/100BASE-T Ethernet RJ-45
- AirPort Extreme Ready, Bluetooth built-in
- Built-In Full-Size Keyboard with 77 (U.S.) Keys
- Built-In Solid-state trackpad, Supports tap & drag
- 55.3 W Lithium-ion battery, 5 hours of battery life
- Apple Mac OS X 10.2 Jaguar Power of Unix
- Save $150 when you buy PB and AirPort Base

**$3,149** | **$122/month** 36-mo. Lease to Own Order Code #20890

## Demo Units, Free Upgrade to 512 RAM

### i-Mac Power G4 700

Just Released Now Apple i-Mac, based on Power G4 PowerPC

Cutting-Edge High-Performance Multimedia Solution with Style!

- New! Apple i-Mac 700-MHz PowerPC G4
- 256K On-chip Level 2 Cache, Airport Ready
- Two 400-Mbps FireWire Ports, 5 USB Ports
- 256MB SDRAM, Up-to 1GB SDRAM Supported
- 40 GB Fast Ultra-ATA Hard Drive
- Nvidia GeForce 2 MX Graphics Accelerator
- with 32MB of DDR Graphics Memory
- Built-In 15" TFT Active-Matrix Flat LCD Panel
- Built-In Microphone and Stereo Sound Card
- Internal Slot-Load CD-RW for Data and Music
- Apple Pro Keyboard and Pro Optical Mouse
- 56k v.90 Fax/Modem, 10/100 Ethernet Adapter
- Apple Mac OS X 10 & Mac OS 9.2 are Installed
- Apple Works, iTunes2, iMovie 2, Quicken Deluxe
- i-Mac 800-MHz, 15" TFT, 256MB, 60GB, COMBO $1,949
- i-Mac 1GHz, 17", 256MB, 80GB, SuperDrive $2,749

**$1,695** | **$66/month** 36-mo. Lease to Own Order Code #19353

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Limited Qnty. **DVD-R/RW** Multi Format DVD-RW Internal DVD Recorder **$349**

**MATROX RTX.100** Adobe Premiere 6.5 Real Time Video Editing Free Upgrade to DVD SE **$1,495**

**Wacom Intuos 2** 12 x 12 Digitizer USB PC / MAC **$699**

**M-AUDIO Revolution 7.1** 24-bit/192kHz, 105 dB Multi-Track Audio **$149**

**Canopus DVSTORM 2** With Break-Out Box Adobe Premiere 6.5 **$1,995**

### PC WORLD

- Asus P4G-8X HT 533fsb, 8X AGP, S-ATA..$229
- Asus P4PE 533 DDR for Pentium 4 478...$189
- Asus A7N-8X DDR 400 8X AGP ATA-133..$169
- Intel Pentium 4 3.06 GHz Hyper Thread....$869
- Intel Pentium 4 2.8 GHz Socket 478 533....$569
- Intel Pentium 4 2.66 GHz Socket 478 533..$379
- Intel Pentium 4 2.53 GHz Socket 478 533..$299
- 256 / 512MB PC2700 333MHz DDR....$59/$99
- 256 / 512MB PC3200 400MHz DDR..$69/$129
- Maxtor 120GB Ultra-DMA-133 7200 HD....$199
- Maxtor 200GB Ultra-DMA-133 7200 HD....$395
- Maxtor 250GB Ultra-DMA-133 7200 HD....$595
- Western Digital 80GB 8MB 7200 HD....$159
- Western Digital 120GB 8MB 7200 HD....$219
- Western Digital 180GB 8MB 7200 HD....$395
- Seagate Cheetah 146.8GB U-320 SCSI $1,495
- Seagate Cheetah 73.4GB U-320 SCSI....$749
- Seagate Cheetah 36.7GB U-320 SCSI....$319

### VIDEO / DVD / STREAMING

- Video Ready DVD-R Media 4.7GB 5-Pack....$29
- Apple / Pioneer Blank DVD-R Media 4.7GB....$8
- Avid Xpress DV 3.5 Power Pack Suite....$4,395
- Avid Xpress DV 3.5 Non Linear Suite....$2,495
- Avid Xpress DV 3.5 Educational Price....$1,595
- Canopus DVStorm 2 Real Time Video Kit..$1,995
- Canopus MVR 1000 MPEG-2 Encoder....$1,049
- Canopus DVRaptor RT2 DV Video Kit....$749
- Canopus ADVC-500 DV/Component....$1,995
- Canopus ADVC-100 DV Media Converter....$479
- New! Canopus ADVC-1394 Digital/Analog...$399
- Matrox DigiSuite DTV / LX / LE MAX Kit..$CALL
- Matrox DigiSuite MAX Upgrade....$3,295
- New! Matrox RTX-100 Real-Time NLE....$1,495
- New! Matrox RTX-10 Real-Time NLE....$895
- Matrox RTMac for G4 & Final Cut 2/3....$1,095
- PipeLine ProVTR RS-232 to RS-422 Cable...$79
- Real-Time MPEG-1, 2 Hardware Encoder...$395

### GRAPHICS / ANIMATION

- 3D Labs Wildcat III 6210 416MB AGP....$3,695
- 3D Labs Wildcat III 6110 208MB AGP....$2,795
- 3D Labs Wildcat VP 970 128MB DDR....$1,579
- 3D Labs Wildcat VP 870 128MB DDR....$799
- 3D Labs Wildcat VP 760 64MB DDR....$589
- ATi FireGL X1 256MB DDR OpenGL....$1,495
- ATi FireGL X1 128MB DDR OpenGL....$1,195
- ATi FireGL 8800 128MB DDR OpenGL....$549
- PNY FX 1000 Nvidia Quadro FX 128MB...$1,495
- PNY 980 XGL Nvidia Quadro4 128MB....$1,249
- PNY 750 XGL Nvidia Quadro4 128MB....$795
- PNY 580 XGL Nvidia Quadro4 64MB....$519
- Matrox G200 MMS 8MB Quad PCI....$1,199
- Wacom Intuos-2 12x18 USB Tablet....$1,095
- Wacom Intuos-2 12x12 USB Tablet....$799
- Wacom Intuos-2 9X12 USB Tablet....$729
- Wacom Intuos-2 6X8 USB Tablet....$549
- Wacom Graphire-2 4X5 USB Tablet....$139

### MULTIMEDIA

- ATi Radeon 9700 pro 128MB DDR 8X AGP...$579
- ATi Radeon 9600 pro 128MB DDR 8X AGP...$329
- ATi Radeon 9100 128MB DDR 4X AGP....$139
- Matrox Parhelia Triple Head 256MB DDR....$999
- Matrox Parhelia Triple Head 128MB DDR....$549
- Matrox Millennium G550 Dual Head 32MB....$169
- PNY GeForce4 Ti 4600 128MB 4X AGP....$399
- Creative Sound Blaster Audigy Platinum EX..$339
- Creative Sound Blaster Audigy Platinum....$269
- ECHO MIA/MIDIA/MONA 24/96w/SPDIF...$CALL
- MidiMan Delta AudioPhile USB w/SPDIF....$279
- MidiMan Delta AudioPhile 2496 w/SPDIF....$229
- MidiMan Delta DIO 2496 w/Optical & SPDIF..$299
- New! M-AUDIO REVOLUTION 7.1 DIGITAL..$149
- Klipsch Promedia GMX D-5.1 Dolby Pro-Z....$429
- Klipsch Promedia 5.1 THX-Certified Spkrs....$599
- Klipsch Promedia 4.1 THX-Certified Spkrs....$399
- Klipsch Promedia 2.1 THX-Certified Spkrs....$279

### MAC WORLD

- PowerMac G4 Server 1-GHz 60GB/256....$4,649
- PowerMac G4 Dual 1.25GHz DP 120GB/DVD/ 512....$3,149
- PowerMac G4 1-GHz DP 80/256/DVD/....$3,849
- PowerMac G4 867MHz DP 60/256/CDRW/D..$2,199
- PowerBook G4 1GHz 15.2 60/512/DVD-R..$4,499
- PowerBook G4 867 15.2 40/256/CDRW/DVD..$3,650
- iBook 600 14.1" TFT 30/256/CDR/DVD....$2,449
- iBook 700 12.1" TFT 20GB 128/CDRW/DVD....$1,949
- iMac 800 17" TFT 256M/80G/DVD-RW....$2,649
- iMac 700 15" TFT 128M/40G/CDR/DVD....$1,699
- E-MAC 700 17" Flat 128M/40G/CDR/DVD..$1,529
- Apple Cinema HD Display 23" Flat Panel....$3,149
- Apple Studio Display 20" LCD Flat Panel....$1,049
- Apple Studio Display 17" LCD Flat Panel....$649
- Apple Air Port Wireless Base Station....$479
- Apple Air Port Wireless PCMCIA Card....$149
- Apple Final Cut Pro 3 / DVD Studio Pro....$1,499
- Apple Final Cut Express Digital NLE Kit....$479

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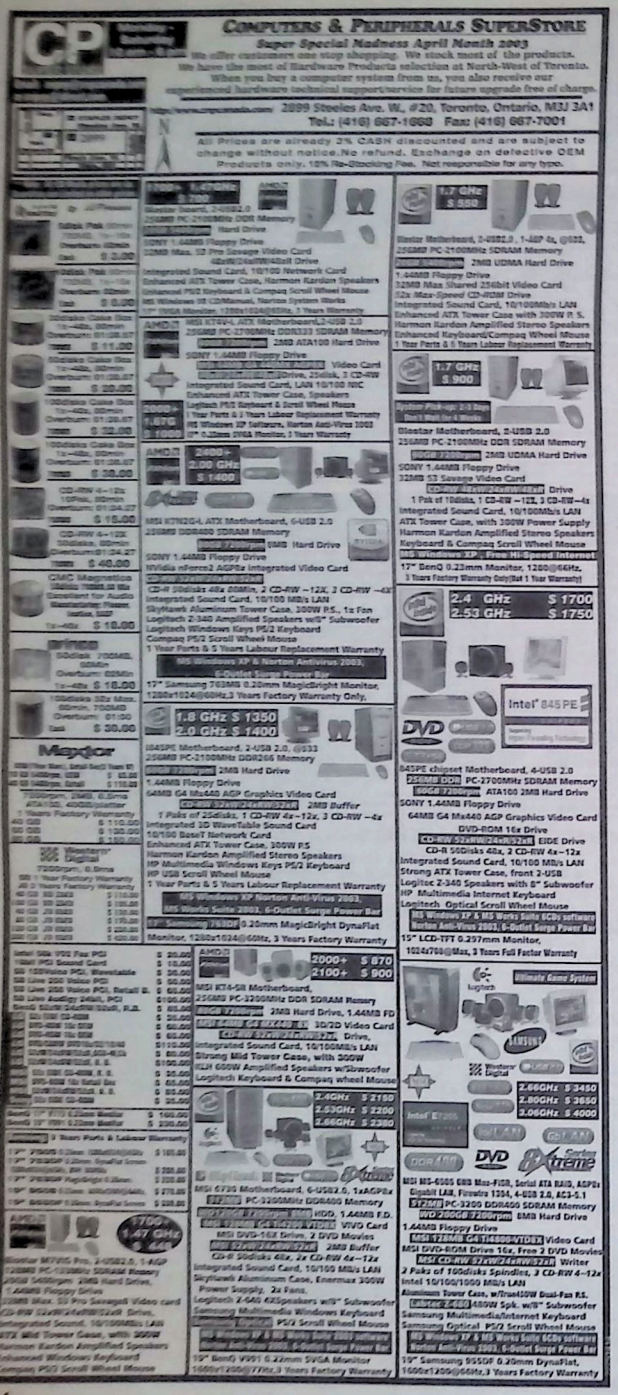


CREATIVETECH

# Digital Shots: Up close and personal

By ANDREW MOORE-CRISPIN

Beyond a simple documentation of events, photography can bring a new perspective to things we see every day.

Let's talk about one of the less used functions of consumer level digital cameras: The macro mode.

The dictionary definition of macro is being large, thick or exceptionally prominent. This gives us a good clue as to what is involved in macro photography. Macro mode changes the focal length of your camera's lens so that instead of capturing a scene at large, photographers can take close up pictures of anything that catches their interest. Macro photography is also good training for your creative eye: Rather than taking a field trip to find scenes of visual interest, macro photography allows us to explore things that are familiar to us, but up close and personal, in all their detail and with new perspective.

All but the most basic consumer level digital cameras offer a macro mode, though it often goes unused.

Macro photography using a digital camera can't compare to the choices afforded to even the most basic SLR cameras – SLRs, with their interchangeable lenses and after market add-ons, go way beyond the ratio of 1:1 (where the original subject is captured at its actual size in the image) or possibly 1:2 (where the subject appears at twice its size) that digital camera macro settings typically offer.

## Get familiar with macro

The main reason for photographers to go digital is that the medium allows more room for experimentation. We can instantly preview pictures and erase our mistakes. To this end, the best way to learn macro photography is to simply go out and try it. Macro photography requires that we look beyond what we're used to seeing and focus on one specific element of a whole scene.

For example, a picture of your garden in bloom is nice, but a lot of individual detail is sacrificed in favour of capturing the entire scene. As the old cliché says, take time to smell the roses, or in this case, get a close-up picture of them.

After you take a picture of your garden at large, try focusing on individual elements of it, like a flower in bloom, a pine cone going to seed, an ant walking across the ground or anything else that captures your interest and that you think will make a nice photo.

Once you are familiar with shooting macro photographs, you will find that you open yourself up to a lot of new possibilities for your pictures. Rather than just seeing the big picture, you will start to break it down into the sum of its parts and realize there is a wealth of interesting photographs to be had in one scene. Instead of taking a picture of an old locomotive in the station while on vacation, for example, think about the form of the wheels or the pistons that drive them, and add another level of interest to your vacation snaps. Perhaps people won't recoil in terror anymore when you invite them to look through your vacation pictures, as is the knee-jerk reaction.

Rather than documenting events to say: "I was here," macro pictures make viewers ask, "what is that?" And instead of taking in a scene with a quick glance, viewers pay more attention to catch the intricacies of the picture.

## Technique

When dealing with close subjects, the smaller distance between the lens and the subject means less light can be captured. This, in turn, requires a larger aperture and slower shutter speed, which means we're losing depth of field (the amount of the scene that is in focus at once). This is why very close-up pictures have a blurred background. It's a nice side effect that really forces viewers to look at the central subject, but it makes focusing more difficult, as there is a much smaller margin of error. Combine this with the sometimes-spotty auto focus of consumer digital cameras and you can see where things might get a little difficult. If your camera offers it, manual focus is preferable to auto in macro photography, as the depth of field is so narrow and you know better than the camera which elements should be in focus. Otherwise, you will have to compensate for the camera and frame your pictures accordingly. As with all photography using a slow shutter speed, you will need very steady hands or a tripod.

Try picking one thing in particular out of a scenic photograph and giving it new perspective as a macro photograph. With a little experimentation, you will be pleasantly surprised at the results. ◆

# Musical Odyssey: The keyboard and the computer

By NESTOR GULA

Recording vocals, bass guitar, acoustic guitar or percussion all present different challenges to the home studio. But there is one instrument that is actually quite simple to record on your computer – the keyboard. Don't get me wrong here, I'm talking about an electronic keyboard. Acoustic pianos are notoriously difficult to properly record because of the complexity of sound that emanates from that instrument.

### MIDI is the key

If you have a keyboard manufactured in the last 20 years, the chances are very good that it has MIDI. Of course, MIDI stands for Musical Instrument Digital Interface. (I wrote a more detailed piece on MIDI in the February 2002 issue of *Toronto Computes!* You can find it online at www.canadacomputes.com.) There are many options available to you if you want to connect your keyboard to your computer via MIDI. You can get a soundcard, like Creative Labs Audigy 2 Platinum, with MIDI ports built into it, or you can get external MIDI cables that connect to your existing soundcard's game port, like the MIDI Cable Pack from Voyetra.

Once the keyboard is connected, you have an amazing amount of power at your fingertips. You can play on your keyboard and the computer will record the notes you hit. Your music software and computer will have General MIDI built in. This is a standard feature that gives the user 128 preset sounds, plus a large selection of drum sounds. Be sure to set your keyboard's MIDI send and your computer's MIDI receive setting to the same channel. Once a MIDI track is recorded, it can be edited to remove mistakes or to enhance some parts. Because MIDI is just data and not sound, you can easily change the sound of what you just played. You can change a part from a flute to a gong with a click of a button. The dynamics (force, length, decay) of the recorded music and individual notes will remain – just the sound will change.

### Keyboard audio

Let's say you have a great old synthesizer, a classic like the Yamaha DX7, and you have a bunch of sounds on it that your computer can't duplicate. To record the keyboard you can simply connect the Audio out (or Line out) of the keyboard to your computer's microphone (or Line in). Your computer's soundcard will convert the analogue sound to a digital format, just like when you record a guitar or vocals.

A neat thing you can do is record or enter a MIDI track into your computer's music recording software, and once it is edited and perfected, send it out as a MIDI file to your keyboard or sound module (basically a synthesizer without the keyboard). The funky sounds of your keyboard will play what your computer tells it to, and you can record it at the same time as a digital audio file. There will be a slight time lapse, but that can always be fixed in editing.

### Virtual synthesizers

The latest rage in computer music is virtual synthesizers. These are computer programs that mimic, or emulate, synthesizers of old, or present a totally new experience in synthesizing or recreating sound. If you want a DX7 sound, you don't have to go through the elaborate steps listed above. Instead, just turn on *FM7* from Native Instruments and you have a DX7 in your computer. Any MIDI-equipped keyboard will now be able to sound like a DX7 (or any other synth) played through your computer.

Gone are the days when professional studios had massive banks of keyboards and synths for musicians to find the right sound. Touring musicians now can bring along one keyboard, but still get the sounds of hundreds of different synthesizers. ◆


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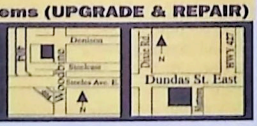


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# The small and efficient A303

**I've never been a big fan of point-and-shoot cameras, because I feel that they severely limit the options for a photographer.**

By NESTOR GULA

You tend to take nice snapshots as opposed to creating photographs because of all the automation that is inherent in these small compact cameras. My resistance to this genre was eroded some years ago when I read that many professional photographers used point-and-shoot cameras for the "quick snap." I bought one used but never used it – preferring my regular cameras.

Consumer level digital cameras tend to be modeled on the point-and-shoot model. The Fujifilm FinePix A303 is one such camera. Although not spy camera tiny, its dimensions are diminutive: 9.7x6.4x3.6 cm (3.8x2.5x1.4 in.). It is also very light, weighing only 145 g (5.1 oz.) without the batteries. The two AA batteries add less than 55 g (2 oz.), so even fully loaded the camera's weight is negligible. As with most digital point-and-shoot cameras, there is a small window that is used to point the camera in the proper direction or a 1.5-inch LCD screen. Prolonged use of this screen will greatly erode the battery power.

**more INFO**

FinePix A303
$549
Fujifilm
www.fujifilm.ca

For its small size, the camera has some nice features. The A303 is a 3.24-megapixel camera, so the quality of the digital file is very good when used at the high resolution setting. It has a 3.2x optical zoom but no digital zoom. Since digital zoom is in most cases useless, I consider this a good thing. The macro setting on this camera lets you focus from 10 to 80 cm (3.9 in. to 2.6 ft.).

Like many digital cameras, the A303 allows you to shoot and store digital movies. In this camera's case, you can shoot 60-second video clips in either 320x240 or 160x120 pixels at 10 frames per second. There is no sound on these recordings. I feel this is an unnecessary feature but it really doesn't interfere with the camera functions. Speaking of extraneous features – the A303 has video conferencing capabilities. This perhaps is great for those who are into video conferencing.

The thing I really liked about this camera is that most of the controls were on the back of it. One click of the large dial on the back switches the camera from macro to regular mode. The same goes for setting the self-timer or going to the movie or picture viewing mode. There is also a flash button that easily lets you scroll through the various flash modes (auto, red-eye reduction, forced flash, suppressed flash, slow synchro). It is great that you do not have to enter the menu system every time you want to switch to a new mode. Because it is designed as a simple camera, there is very little manual control over the exposures in the A303. You can adjust the exposure levels a bit, and the white balance, but that's about it.

This camera uses the new xD-Picture Cards, which are about the size of a regular postage stamp. It comes with a 16 MB card that is barely adequate for shooting at the highest resolution setting. XD cards currently come in sizes up to 128 MB and have the capability of eventually holding up to 8 GB. ◆

# Easy corrections get tricky

By MARA GULENS

*Picture It! Photo Premium 7.0* fits somewhere between Microsoft's photo editing software for absolute novices and its higher end package, *Picture It! Digital Image Pro*, which has way more templates and plug-ins, and is for users who want to go as far as creating company letterheads and magazine covers.

Since I'm still pining for a piece of software I had that did the job quickly and efficiently, but no longer works with my system, I gave *Picture It! Photo Premium* many chances over the past few weeks – because I really wanted it to work.

And with the basics, it does. *Picture It!* takes the work out of uploading pictures to your computer: Just connect the cable from your digital camera to the PC and specify that you always want to send images straight to photo editing. Because, really, the primary thing people with too little time on their hands want to do is crop pictures, take care of red-eye and maybe fix up what's left of the background so the image is ready to be posted on the Web, printed or archived.

The cropping is easy enough – I just wonder why image size can't be automatically adjusted to a standard 4x6 inch size – many people still like printing out photos that fit albums and frames. Red-eye removal is also basic and easy – zoom into the picture, plop the little circles on the eyes and you're done. (Much better than some software I've tried, which has the user draw the circles).

Everything else after that, however, was both simple and a mystery. I'll be the first to admit that while I can handle the video tutorials and a bit of reading about how stuff works, I really want to just be able to do it without thinking. Hence, I stick with *Premium* even though the next level could probably do so much more.

With *Picture It!*, for example, I could never really understand the frames on the bottom and the side, and kept going back to the My Pictures folder to see what had landed where. When I saved various layers after, for example, cutting out images and adding backgrounds, it was hit and miss as to whether I could fuse them together to create the fantastic image I was aiming for.

On the up side, it's nice to have a package that comes with a library of backgrounds, frames and patterns, so that once you get inspired to do more with what you have, the tools are at hand. You can also use your own images as backgrounds and frames, but again, I'm not planning on doing this as a profession, so what's there doesn't count.

There are 1,500 templates to get you started, with everything from cards, to calendars, to labels and business cards, which will really get you excited about what you can do with the images you've accumulated. Indeed, it makes you think that the meaning of the photograph is changing along with the software we get in order to correct and enhance it.

Case in point: For the past year, the best pictures of my extended family have been the ones that are part of the calendar hanging on the bathroom door. We look at those way more often than we do at the photos in albums (which, by the way, isn't even an option because we haven't managed to get as far as putting the photos in albums).

My final test before writing this review was to take photos shot yesterday, upload them and see how quickly I could correct and enhance. No surprise, everything outlined above was confirmed twice over. Correction was done in a flash. Enhancement, on the other hand, got tricky when I lost the images in the folder and couldn't quite get the cut-out to fit in the frame. ◆

**more INFO**

*Picture It! Photo Premium 7.0*
$74.95
Microsoft
www.microsoft.ca

Requirements:
Windows XP/ME/2000/98, 300 MHz processor (500 MHz or higher recommended), 64 MB RAM (128 MB or higher), 220 MB hard disk space, Internet Explorer 6 browser, 4x CD-ROM or higher, 1 MB video RAM

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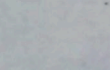

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| Pentium 4 1.7 Ghz P4 Mainboard, 256 Meg SDRam, ATX Mid Tower | $ 399.77 |

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# Canon i850: Good results at a great price

By DAVE CHAPPELLE

Full-page 8.5x11-inch full-colour photos required 1 minute, 54 seconds to print.

Canon's latest photo printer has a print head capable of putting 2 picolitre ink drops on paper. How big is 2 picolitres? Canon officials told us one-eighteenth the cross sectional area of a human hair represents approximately 2 picolitres. Naturally, we didn't whip out our trusty electron microscope to measure, but we did manage to print off some decent images. (And to you engineers and fellow geeks, we know a cross section represents area while a picolitre is a measure of volume; please refrain from bombarding us with your e-mailed objections, okay?)

The new 1,600-nozzle print head is supposed to eject the precise amount of ink required, to increase speed and efficiency. Maximum resolution is 4,800x1,200 dpi. Canon claims 22 pages per minute in black and 14 ppm in colour. Those are good speeds, and if it's quality photos you're after, it's going to be faster than traveling to have your film developed. Full-page 8.5x11-inch full-colour photos required 1 minute, 54 seconds to print.

Results were pleasantly surprising, even from older digital camera images. The software allows you to tweak the image slightly for better output. To avoid frustration and disappointment, make sure you select the correct settings, especially paper type, before printing a photo. Also, make sure you've used the correct kind of photo paper. Canon makes Photo Paper Pro, which gave us the most impressive images. Even plain paper worked well. Some competitors glossy papers proved disappointing on this printer.

Slots to input camera media directly would be nice, but we don't really expect them yet in this price range. The silver chassis looks very sleek and modern when the printer is closed up. With input and output trays opened and fully extended it measures 42x54x27 cm. The i850 uses four separate cartridges in the standard CMYK (cyan, magenta, yellow, black) system. Cartridge insertion and removal is easy. Single cartridges can be replaced as they empty, instead of having to change all at once.

The i850 connects via parallel and USB. Mac users get their own instruction pages. By following instructions in the Quick Start Guide, we were printing in a few minutes on our Windows XP system. If your digital camera is equipped with Exif (Exchangeable Image File Format) 2.2, the i850 will support this standard.

To help with your creative endeavours, Canon bundles four applications: *Easy-PhotoPrint* allows simple editing, including the making and printing of borderless full-page prints from recorded images; *ZoomBrowser EX* displays images as thumbnails for easier selecting; you can perform very basic editing functions with *PhotoRecord* as well as adding frames and backgrounds to your images: *PhotoStitch* lets you merge separate images, taken consecutively, into a single panoramic image. ❖

## more INFO

**i850 Bubble Jet Printer**
**$229**
**Canon**
**www.canon.ca**

**Requirements:**
**CD-ROM drive**
**Mac 8.6-9x, USB, 30 MB disk space**
**Mac OS X v10.1 or later 100 MB disk space**
**Win 9x, ME USB or parallel port, 15 MB disk space**
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# Programs to solve your photo woes

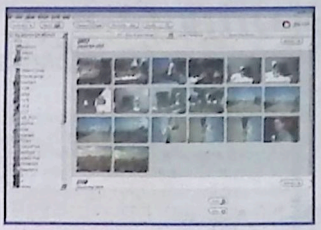
By NESTOR GULA

### Find photos MIA on your drive

If you are like most digital camera owners, you have hundreds of photos on your hard drive. If you are not typical, then you are well organized and your photos all reside in one area, in clearly marked folders. Unfortunately that is not the reality for many.

This past September, a handy application was launched that automatically organizes your photos. Called *Picasa*, it scans your hard drive and looks for all the photographs you might have squirreled away heaven-knows-where. Once *Picasa*, which just had a major upgrade to version 1.5, finishes scanning your hard drive, it provides a very easy-to-follow screen with all your photographs in front of you. The program lets you import images from most cameras, and now supports network drives to find even more images. Movies are now also supported.

From here you can do some very basic editing of your images, such as cropping, red-eye removal, simple enhancements and image rotation. Once you have picked the photos you like, you



can e-mail them, print them directly from the program or even organize them in a slideshow and add music. Unfortunately you cannot export the slideshow in any way. What you can do is export a group of photographs as an HTML page, although the options here are very limited and no customization is available. The pages generated by *Picasa* can be edited in most Web editing programs.

*Picasa* is a neat little program that will be welcomed by many amateur photographers. You can download a free 15-day trial from www.picasa.net.

### Easy 3D slideshows

To create really cool slideshows simply and inexpensively, *3D-Album* is your ticket. It takes just three quick steps – select the folder you want, select a style of slideshow and select what type (application, screensaver, HTML start page, Zip or executable) of file you want.

There are more than 70 styles of slideshows – all of them in three dimensions, as the name of the software would suggest. There are also more styles becoming available on the application's Web site for free download. The styles can be customized slightly in animation speed, photo size, background and 3D headline text. Some of the styles have a built in interaction feature that has the presentation responding to keyboard, mouse or joystick input. The slideshows can be accompanied by music of your choice.

Where this package stumbles is in the organization and editing of the images. It has no built-in editor and relies on you to have a suitable application on your system. It will link to any photo editor though, allowing it to be opened inside *3D-Album*.

Clicking on the Organize button brings up the Photo Organizer screen. This is a somewhat stylized Windows file browser, with the thumbnails of the photographs in the folders shown in one part of the browser. It is a bit cumbersome and not very elegant.

*3D-Album* is a fine program. The 3D effects are very smooth and professional looking. It does not require great resources to run and comes in 10 languages in the box. ◆

**more INFO**

*Picasa*
US$29.99 (free 15 day trial)
Lifescape Solutions Inc.
www.picasa.net

Requirements:
300 MHz Pentium processor or better, Windows 98/ME/2000/XP, 50 MB hard drive space, 64 MB of RAM

*3D-Album*
US$39.95
Micro Research Institute Inc.
www.3d-album.com

Requirements:
PC with 200 MHz or higher clock speed; Windows 98/2000/ME/XP/NT 4.0+; 64 MB RAM with Windows 98/NT 4.0 (128 MB recommended); 128 MB RAM with Windows 2000/XP (256 MB recommended); 3D video card with 16 MB RAM or more, supporting OpenGL; 800x600 screen resolution or higher; 24- or 32-bit colour depth (True Color); sound card; CD-ROM or DVD drive.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REVIEW

# Few new tricks in *Quicken* upgrade

By NESTOR GULA

The big push of this newly redesigned version of *Quicken* is that you can organize and take care of your finances quickly. It is easier to set up than any other version that I have used before.

Online services play an important role in *Quicken XG*. The basic package comes with a 12-month subscription to Quicken Online services – allowing you to download banking information, update stock and mutual fund prices, and similar features. This service usually costs $6.95 per month and is available in different packages from Intuit.

This new package combines three previous versions (*Basic*, *Deluxe* and *Home & Business*) into one program. This is great if you are operating a small business out of your home.

I'm bothered by the reliance on online services. In the light of hard drives and information being lost by venerable financial institutions, I question the wisdom of putting the bulk of one's financial information online. My other concern is the package itself. It looks great and works well, but if you bought a package a year or two ago, why do you need to upgrade? If you don't have a financial management package on your computer and are looking for one, then *Quicken XG* will work great. If you already have one, then it would probably be best to save your money. It will look better on the balance sheet. ◆

**more INFO**

*Quicken XG*
$99.99
Intuit
www.intuit.ca

**Requirements:**
PC with 133 MHz (300 MHz recommended); Windows 95/98/2000/ME/XP; 32 MB RAM (64 MB recommended); 97 MB free hard disk space; 2X CD-ROM (4X recommended); 256-colour SVGA monitor (16-bit colour is recommended); *Internet Explorer 5.5* (included with program); Internet connection to use online features (14.4 Kbps minimum, 56 Kbps or higher recommended)

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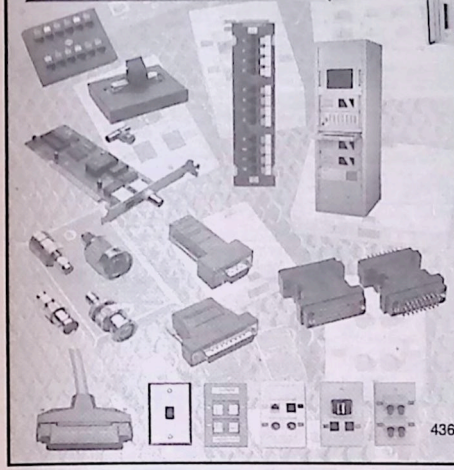

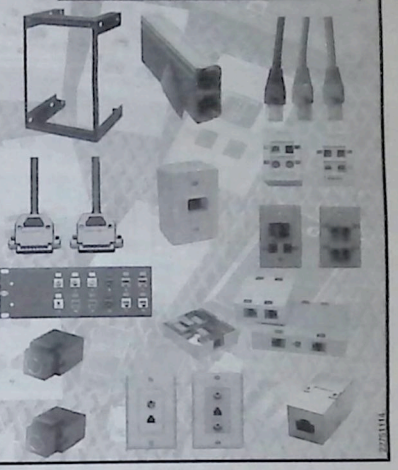

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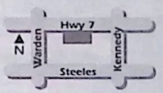


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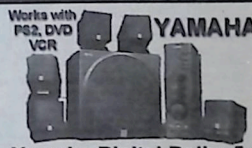


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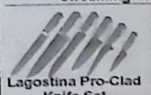

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ASUS A7V-333-WA 119
ASUS A7V-333-X 129
ASUS A7V8X-WL 159
ASUS A7V8X-X/SL 189
ASUS A7V8X-X/SL-1394 179

SOCKET 478 (PENTIUM IV)
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ASUS P4B533-VM-L 149
ASUS P4B8GL-MX 109
ASUS P4G8X-DX 309
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ASUS P4PE-L-R 209
ASUS P4S333-VM-WA 119
ASUS P4S533E-WA-WL 129
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EG565P-VE (350W) 189

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INTEL P4-2.0AGHz w/512K ... 269

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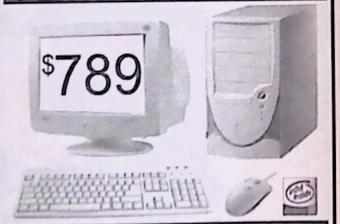

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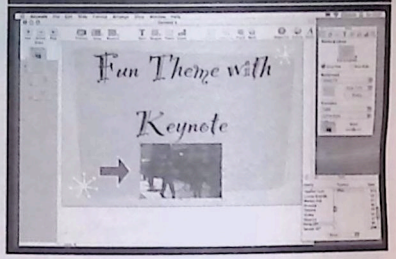
FEATURE

# Apple presents: *Keynote 1.0*

By DWAYNE R. BROWN




*Keynote* has come along at a time when Apple is striving to maintain not only its unique identity in the world of computing, but also at a time when uniqueness alone cannot pay the bills. Apple has clearly been paving a road to reach a wider mass of people for everyday home and business computing. The best way to do that is not by inventing, but reinventing. *PowerPoint* has been around for a long time, so Apple couldn't just throw out a package and hope for success. With *Keynote 1.0* Apple lays its familiar touch on software by stripping it down, making it intuitive, clean, reliable and – especially important for presentation software – polished.

When *Keynote* first opens, you'll notice that it's a lot cleaner looking than *PowerPoint*. After all, you don't need to be searching for the right tool while you're creating a presentation. The first thing you do is pick a theme. A theme gives a cohesive look and feel to your entire presentation. You can start from a blank slide and create your own theme or modify one of the existing 12 themes. Each theme consists of 11 master slides that are already laid out for titles, text, graphics and combinations of those elements.

Within an hour of first using *Keynote*, I had a 19-slide presentation set up with graphics, audio and all my text. How is that possible? Keynote is extremely drag and drop friendly. To add audio or video to a slide, you just find the file you want and drag it to the slide you want it to play on. A little speaker icon indicates that there is audio on that slide, but the icon does not show during the presentation. Video can be resized, and either media can be started or stopped just like any other build or can just start automatically when you reach that slide. It's that simple.

Graphics make full use of OS X's Quartz display engine. Again, dragging them into your presentation gives you full control over placement and resizing. Typically you'd expect some aliasing when you resize a graphic in a program like this, but not here. The graphics remain crisp and clear. To help place those graphics, there are "dynamic alignment guides." Whenever you move a text box, graphic or video file around the screen, alignment guides pop up to let you know that you are centred horizontally, vertically, or with another graphic. There's nothing worse than watching a presentation where the titles and bullets are doing the jig around the screen from slide to slide. These guides make sure that everything is aligned and that makes for a much better presentation.

Transitions are another area where Apple spent a little extra time. They are clean, smooth and very professional looking. One in particular, the cube, looks as good as any effect I have seen in a professionally done presentation.

The content and effects on each slide are manipulated through the inspector (a small window on the screen), which gives you control of text, transitions, builds, charts and graphics without having to go through the menu bar to find the right command. One last great idea the company threw in is the ability to save your presentation as an Adobe PDF file. While it doesn't retain all the effects, the content (along with graphics) will be readable by anyone with *Acrobat Reader*. Now that's smart.

Apple claims that *Keynote* was designed for Steve Jobs. See what happens when you're designing something for your boss – you do it right the first time. *Keynote* is pretty stripped down when compared to *PowerPoint*, but when all you want to do is give a good clean presentation to impress your clients, you don't need the world at your fingertips – only the pretty pictures. Get the word out – *Keynote* works. ◆

**more INFO**

*Keynote 1.0.1*
$159
Apple
www.apple.ca

**Exports and Imports to/from *PowerPoint*, and exports to *QuickTime* and PDF.**

**Requirements:**
**PowerPC G3 or G4; Mac OS X 10.2 or later; 512 MB RAM (recommended for smooth transitions) 32 MB Video memory; 1 GB of available disk space**

# AvantGo is #1

Every morning before I go to work, I don't read the newspaper. I don't check out various news Web sites either. Instead, I use my PDA to take my daily dose of what's new and interesting with me. How? By using what I consider the best third-party piece of PDA software freely available – *AvantGo*.

For those who haven't discovered this gem, *AvantGo* is a Web capture and browsing service for both Palm and PocketPC PDAs. Quite simply, it is a means of taking Web content (pictures and text) and viewing it offline (or even online) on your handheld. It consists of two components: A browser/viewer for your PDA and software for connecting to the AvantGo Web site and downloading content.

### Setting it up

To set yourself up with *AvantGo*, you must visit its Web site and sign up for an account. After choosing a login name and password, you will be able to download the software for synchronizing information, as well as the PDA software. Once you have configured your desktop and PDA, you are ready to select what content or "channels" you wish to have on your handheld. You can browse available channels based on category, goals or your location. I found that I had to be careful not to restrict my view to my current location, as only a small percent of channels are deemed to be Canadian. A nice touch is the ability to preview the channels online so you can see what they would look like on your PDA. Once you have selected your channels, simply use your desktop PC or a modem with your PDA to synchronize the content. You are now ready to obtain Web pages of information specifically formatted to be viewed on a small screen.

### What's available?

Since there are millions of Web pages online, you may wonder which are available for offline viewing. Currently, there are 1533 channels available, divided into 12 categories: Automotive, Business/Finance, Education, Entertainment, Health, Lifestyle, News/Media, Portal, Shopping, Sports, Technology and Travel. There is a reasonable number of channels with Canadian content, including CBC.ca, Canada.com, globeandmail.com and CTV.ca, which should be more than enough to keep you abreast of Canadian news. You can remove channels from your subscription list directly from your PDA, but to add channels you must log onto the *AvantGo* Web site.

### What's the catch?

Is there anything wrong with *AvantGo*? Not really. Since it is a free service (for up to 2 MB) you do get minor advertising displayed on your PDA. However, all I have ever noticed is two small ads on the main page listing your channels. And of course, if you have a serial PDA and you subscribe to the maximum content, you will find it takes a few minutes to synchronize. Although I had to give them my e-mail address, I opted out of the mailing lists, and as far as I can tell, my information hasn't been sold.

So every morning I synchronize my Palm with *AvantGo*. About two minutes later I have almost a megabyte of the day's news and information, which I can peruse throughout the day.

For anyone traveling, waiting around or with a few minutes of free time, you can get caught up on whatever information you want. This has to be the best freeware application for PDAs, bar none. ◆

Personal e-mail can be sent to linfield@rocketmail.com

**more INFO**

**More information is available on the AvantGo Web site** www.avantgo.com. **I was pleased to read details on Linux (and other UNIX) support directly from the AvantGo website at** www.avantogo.com/doc/mobile/unix.html.

**Requirements**
**Palm, Windows CE, or PocketPC PDA with up to 2 MB free RAM, and an Internet connection on your Windows/Linux/MacOS desktop and/or PDA for downloading content. Free service for up to 2 MB of channel information (per synchronization), while users who want more content can pay US$19.95/yr for up to 8 MB of channel information (per synchronization).**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# Who are you?

## Maybe I'm just getting old,

## but knowing who you are used to be such an easy thing to figure out.

You had a name, a postal address and a phone number or two. If someone wanted to learn something about you, all he or she had to do was ask you (or someone who knew you).

Not only that, but who you were stayed more or less the same all your life. Sure, there were the standard decision points along the way, like the first forays into self-expression at age four or five, the agonized self-questioning in your early teen years, maybe even some semi-focused efforts to "find yourself" in early adulthood. But basically you were who you were, and that was that.

Enter the 21st century, computers and the Internet – and a whole new universe of definitions of identity, ways to express that identity and paths of discovery.

Search engines are partly to blame for that – so much so that "Google" has become a verb as well as the name of the most popular search engine used these days. That usage is eerily illustrated in William Gibson's latest novel, *Pattern Recognition*.

Unlike Gibson's previous novels (though his last few have been tending in this direction), *Pattern Recognition* is set in the near-present rather than the future. The story takes place a year after the events of September 11, 2001 and features Cayce Pollard, a consultant who has a finely-tuned (one might say pathological) level of sensitivity to brand names, logos and the ways they influence markets. The novel's plot has Cayce travel a lot, meet the usual crowd of Gibson-type corporate and technology lowlifes and come to terms with her father's involvement (and possible death) on September 11.

Along the way, people meet, talk and learn more about each other. And how do they do that? Via Google, of course.

"Who are you when I google you?" asks one character of another. At another point in the story, the narrator says, "When I googled him, I found ..."

Some of Gibson's fans are a little upset and disappointed with this novel, because its setting is in the present rather than the future. What's lost, certainly, are the nervous, edgy thrills that came with the very high tech and dystopian landscapes of his earlier Sprawl trilogy novels (*Neuromancer, Count Zero* and *Mona Lisa Overdrive*). What's still there, though, is Gibson's fascination with how technology intrudes upon human life and how it shapes our interactions with each other. As usual, he's right on when it comes to identifying what's making us tick.

Think his use of "to google" is a little weird? Think again. In 2001 and 2002, the Pew Internet and American Life Survey looked at how people used Google and other search engines. Enough people used search engines (Google more often than others) to query their own names or someone else's, two patterns the Pew folks call "vanity" and "detective" searching.

According to the survey, one in every

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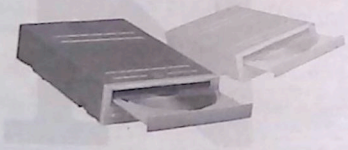

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four Net users had typed their own names into a search engine to see what came up. It seems that men are more likely to do a vanity search than women (30 per cent versus 24 per cent). Younger users are more likely than their older counterparts to have looked up their own names (29 per cent of 18-29 year-olds versus 20 per cent in the 50-64 year-old range). A majority of the searchers (55 per cent) told the Pew survey they found what they expected, but 24 per cent said they were surprised by how much information about them was available online. On the other hand, 16 per cent of the vanity searchers were surprised (and perhaps disappointed?) by how little information was there. Seventy-six per cent of the vanity searchers found the information to be accurate, compared to 17 per cent who found the information to be inaccurate.

Next, we come a little closer to the world of Gibson's novel. According to the Pew survey, one in every three Net users has looked up someone else's name on a search engine. Interestingly, there were no significant differences between men and women in doing "detective" searches. Seventy-seven per cent of detective searchers were looking for a specific piece of information, such as an address. Seventy-one per cent were trying to find someone they'd lost track of and a full 10 per cent were trying to find out something about someone they were about to meet for the first time. Whatever the motive, googling seemed to work for most of them – 65 per cent said they found the search results useful.

Who are you when I google you? Who have you googled lately?

More interestingly, perhaps, what do the results of your vanity search tell the rest of the world about you? Is it an image you're comfortable with? If not, how would you go about correcting that impression? Is such a correction even possible?

And, lastly, if you're googling someone before meeting them for the first time, don't you think perhaps you might be spending just a little bit too much time online? ◆

Alan Thwaits, a *TCI* Contributing Editor, is a freelance journalist who writes about computer, communications, and business technologies. He can be reached at praxis@pathcom.com.




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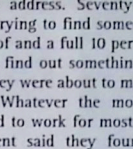


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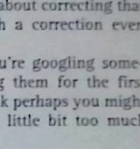


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Deskjet 3820/3845/5550/5650 $99/179/199/199
Deskjet 6122/6127/6540 $279/369/415
LaserJet 1200/1220/1300 $499/599/699
LaserJet 5P/6P/2300/2300D $715/899/1699
**LEXMARK**
Z515/Z645/Z735/Z55/Z605 $99/169/149/199
**BROTHER**
HL1270/1440 $299/359
HL1640/1670N/1850 $429/599/699
Multi-Func 4600/6600/9700 $429/599/699

### Network
3COM 3C8033-TX/100 $20
ACPEN KD1063-N (PCI) $20
DLINK DFE-530TX/DWL-G122 $39/79
DLINK DSB-S-25/S5-R/S-R $59/75
DLINK DWL-650/DWL-G650 $79/109/159
LINKSYS Wireless-G PCI $79/109/159
LINKSYS Wireless-G PCI (USB/PCI) $89/99/105
LINKSYS Wireless-G Router $189/229
SMC Barricade 7004VBR $109/129
SMC Wireless-G PCI/USB $129/129
SMC Wireless-G Router $189/229

### UPS
**APC**
SmartArmor Pro/Pro/TT $29/39
BackUPS ES 350/500 $69/89
BackUPS 1000XL/1400XL/5700 $119/169/199
BackUPS Pro 650/1400 $279/479
SmartUPS 420/620/700 $349/429/469
SmartUPS 1000/1400/1500 $699/899/1099
TRIPPLITE
Isotel 6 / 8 Outlet $59/79
Internet 350/500/Smart550 $69/89/99
SMC Barricade 7004VBR $109/129

Prices are subjected to change without advanced notice. All systems are 1 year parts & 3 years labor depot warranty. All components are one year warranty unless specified. All prices are 4% Cash Discounted. Taxes & shipping are not included. All products are registered trademarks of their respective companies

# Picture this: Image libraries online

By HAROLD LASS

Whether you construct Web sites or just want a new desktop wallpaper, images abound online, many just for the grabbing. Be sure to read the fine print before you grab, though – not all photos are free. Many of those that are copyrighted require payment. But many sites will permit you to download and use images at no cost. Some sites allow a limited number of downloads or free use of a version in a lower resolution and some require a site credit. Best of all, whether you're a Mac or PC advocate, images don't care.

Yahoo! (gallery.yahoo.com) has an extensive collection of photos in categories ranging from Animals to Travel. They also have a large number of news photos at: story.news.yahoo.com/news?tmpl=index&cid=705.

If travelling to the Middle East is a bit too hot to handle these days, you can always visit via pictures. Holy Land Photos (www.holylandphotos.org) features images from Israel, Greece and Turkey. Each database is preceded by a map that identifies the location of the shots.

Space Image Libraries (www.okstate.edu/aesp/image.html) links to photos of the International Space Station, past space flights, views of the Earth, Hubble Space Telescope shots, space craft and more.

There's an extensive collection at Library Spot Image Libraries (www.libraryspot.com/imagelibraries.htm). One featured image collection link is to The National Geographic (www.nationalgeographic.com/media/photography). Stunning photos can be downloaded singly or used as your desktop background. The site also provides fascinating background to the photos and features material for kids. Another link at Library Spot is Ditto.com (www.ditto.com). It's a visual search engine. Just type the name of whatever image you're looking for and visit the results.

At FreeFoto.com (www.freefoto.com) there are a lot of photos – as long as they're for private, non-commercial use. All others must pay. What a collection. Just pick a category and drool. For instance, are you tired of the *PowerPoint* backgrounds you have to choose from? Hit the *PowerPoint* link, select a category and choose from a host of delicious backgrounds.

One place I visit frequently for images is Webshots (daily.webshots.com). You can either download their free software, which grabs entire collections of their photos for you or right-click on your heart's desire to download it yourself or set it as your desktop wallpaper. The collection at this site never fails to amaze, and new images are constantly added. The shots at this site are free if downloaded at 800x600 resolution but cost at 1,600x1,200 resolution.

Just a word of caution. Overuse of images on a Web site or in a project can result in ocular overload. Go easy, choose the right image and let it speak volumes. ◆

**more INFO**

**Canada Photos:**
www.canadianculture.com/canphotos
**Earth and Moon Viewer:**
www.fourmilab.ch/earthview/vplanet.html
**Google Image Search:**
images.google.com
**Liaison Agency Inc.:**
www.liaisonphoto.com/home.htm
**New York Public Library Picture Collection Online:**
digital.nypl.org/mmpco


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APPLICATION FORM: DEADLINE JUNE 30, 2003

Title of entry: ..... Name: ..... Age: .....

Equipment used to record composition: ..... Address: ..... Occupation/School: .....

Postal Code: ..... Signature: .....

Email: ..... Phone: ..... Date: .....

www.canadacomputes.com/cooltunes


**RULES AND REGULATIONS**

**1.** You may submit up to three (3) original compositions. Each composition submitted must be your own original work. Compositions may not exceed five (5) minutes in length. A completed and signed application must accompany each entry. Contestants must submit all entries in MP3 format and burned on a CD. CDs will not be returned. Compositions previously recorded and released will be disqualified. Compositions using samples of previously recorded material will be disqualified unless accompanied by a release waiver from the original artist.

**2.** This contest is open to amateur unsigned acts. All genres of music will be considered. Employees and families of *Toronto Computes!*, its parent company, subsidiaries and affiliates are not eligible. Contestants must be Canadian citizens or have landed immigrant status.

**3.** Winners will be chosen by a select panel of judges and will be judged based on melody, composition and lyrics (when applicable). The quality of performance and production will also be considered.

**4.** The first place winner will have first choice from the prize pool. The second place winner will have the second choice. The third place winner will have the remaining prize.

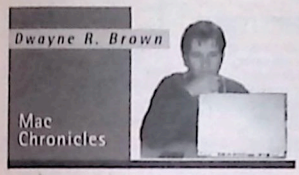
**5.** By submitting compositions and the signed entry form to this contest the entrant claims that their composition is original work and he/she holds all rights to the composition. The contestant also agrees to give *Toronto Computes!*, its parent companies and subsidiaries the non-exclusive right to use the compositions for future advertising and publicity purposes without additional compensation for a period of two (2) years from the date of the contest's closing date.

**7.** All entries must be postmarked by 5 PM EST June 30, 2003. Winners will be chosen by July 15, 2003. Winners will be contacted for their choice of prize. Results will be announced in the August issue of *Toronto Computes!*

**8.** All decisions of the judges are final.

Send your entries to: Toronto Computes!, Cool Tunes Contest, 625Church Street, Suite 800, Toronto, ON, M4Y 2G1 Attn: Editor

# Forget the windows ... clean the Apple




Ahh, spring is finally in the air. And what's the first thing that comes to mind? Why, spring cleaning of course. There's just something in our DNA that compels us to re-arrange, re-organize and start afresh. Now, while this usually refers to our houses, apartments, lawns or vehicles, we mustn't forget that we do live in the wired age. Spring cleaning should also extend to our digital lives and by virtue of that – our Macs.

Anyone familiar with the PC knows that spring cleaning comes, seemingly, every few weeks. Whenever there is a conflict on a PC (heck, whenever a new application is installed) the standard procedure is to reboot and often let the OS run a scan of the hard drive to check for and correct any discrepancies with the startup instructions. This procedure in itself over time causes a buildup of bad code. On a recent call-for-help type of tech show a caller asked, "What's the best way to keep my Windows XP computer in top running condition?" The host answered, "Don't use it." While amusing, it's certainly not the answer you want to hear.

Macs do have a better track record, but that doesn't mean that they aren't prone to failure. With a little preventative medicine, you can catch most of the problems before they occur.

### What's in the supply closet

First up – use the tools you were given. Apple provides a basic disk utility with its OS called (are you ready for this?) Disk Utility. While it is accessible from the Applications/Utilities folder in OS X, the best way to run it is from the Mac OS CD-ROM. The reasoning is that without the OS running, the program can check all files and folders without fear of causing problems. OS X is especially particular about allowing access to system files while they are in use. First Aid in the Disk Utility module will verify disk permissions and repair them where required. This is your first line of defence.

If you think Mr. Clean does a good job on your kitchen floors, wait until you try the freeware *MacJanitor*. I have yet to find a Web site that doesn't recommend this piece of software. Even Apple lists it in its knowledge base. The big secret about *MacJanitor* isn't its complex code and amazing prowess – it's the simplicity. All *MacJanitor* does is tell your Mac to execute script that it would normally run anyway. Apple built a few little applications into its OS that run around in the wee hours (between 3:15 and 5:00 AM) and clean up log files, check system files and do some general clean-up. The problem is, most people don't leave their computers on overnight. And if it isn't on, it won't run. *MacJanitor* is just a manual way to start these scripts. It's quick, painless and deserving of the "ounce of prevention is worth a pound of cure" line.

### Hiring extra help

Bring on the big guns. Perhaps one of the biggest reasons that Macs have enjoyed such a stable track record is due in part to strong re-enforcements. Alsoft's *DiskWarrior* and Symantec's *SystemWorks 2.0* are extremely competent tools to help out. These packages can do everything from tracking minor

continued on page 43

**more INFO**

For instructions on running the First Aid Disk Utility, look for AppleCare Document #106214 at www.apple.com/support. This document also describes other start-up procedures if you're running into problems.

*MacJanitor* can be found all over the Web from a Google search. Its author, Brian Hill, also answers many questions about *MacJanitor* in several online forums.

*Symantec SystemWorks 2.0* info can be found at www.symantec.com.

*Alsoft DiskWarrior* info can be found at www.alsoft.com/diskwarrior.

*Aladdin Spring Cleaning* info can be found at www.aladdinsys.com/springcleaning.

Requirements for the above products vary and can be found at each company's Web site. Be sure to fully read for each piece of software, because when you start to work with disk utilities, unexpected results can occur if you're not careful.

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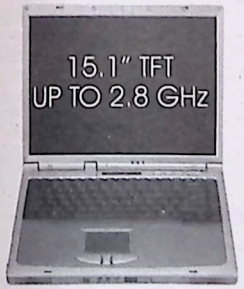


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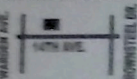
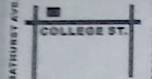
# ICCT

**MARKHAM**


30 CrownSteel Dr. #10
TEL:905-513-9935
FAX:905-513-8717
MON-FRI: 10:30-19:30
SAT:9:30-18:00
SUN:11:00-17:00

**TORONTO**


306 College St.
TEL: 416-921-0702
FAX: 416-921-9930
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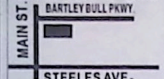
SAT: 9:30-18:00
SUN: 11:00-17:00

Http://www.icct.ca Toll Free:1-866-549-ICCT (4228)

**BRAMPTON**


1 BARTLEY BULL PKWY. #24
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FAX: 905-460-0464
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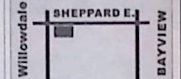
SAT: 9:30-18:00
SUN: 11:00-17:00

**NORTH YORK**


201 Sheppard Ave. E.
TEL: 416-224-5553
FAX: 416-224-2678
MON-FRI: 11:00-20:00
SAT: 9:30-18:00
SUN: 11:00-17:00.


## Networking

| | |
|---|---|
| D-Link 10/100 NIC 530TX | $8.9 |
| D-Link DFE-538TX | $14 |
| USR 10/100 NIC 2976 | $58 |
| D-Link 4-Port Router | $63 |
| LinkSys 4-Port Router | $84 |
| LinkSys Wireless Router | $121.9 |
| More .... www.icct.ca | |

## Sound Card

| | |
|---|---|
| S.B. 128-Bit PCI | $22.9 |
| S.B. LIVE!-1 OEM | $43.9 |
| S.B. Audigy OEM 5.1 | $89.9 |
| S.B. Audigy2 Retail | $166 |
| S.B. Audigy Gamer 5.1 Retail | $125 |
| S.B. Audigy Mp3+ 5.1 Retail | $101 |
| S.B. Audigy Platinum2 Retail | $242 |
| S.B. Audigy Extigy | $186 |
| More .... www.icct.ca | |

## Hard Drive

| | |
|---|---|
| 80G Segate Serial | call |
| 40G Maxtor 7200 ATA-133 | $95 |
| 60G Maxtor 7200 ATA-133 | $121 |
| 80G Maxtor 7200 ATA-133 | $128 |
| 80G Western Dig. ATA-100 8M | $149 |
| More .... www.icct.ca | |

## Printer

| | |
|---|---|
| Samsung 1430 | $259 |
| Samsung 1440 | $328.9 |
| Epson C62 | $132.9 |
| HP LaserJet 1000 | $335 |
| Canon S330 | $77 |
| More .... www.icct.ca | |

## Scanner/Cam

| | |
|---|---|
| Epson 1260 Photo | $129 |
| Acer (BENQ) 4300U | $59 |
| More .... www.icct.ca | |

## MainBoard

| | |
|---|---|
| ASUS P4B/GL-MX | $91 |
| ASUS P4G8X Deluxe | $305 |
| ASUS P4PE/L | $154 |
| ASUS P4S8X | $157 |
| ASUS A7N8X Deluxe | $192 |
| Gigabyte GA-7VAX | $111 |
| GigaByte 8INXP | $290 |
| MSI KT4 Ultra | $143 |
| MSI KT4-VL | |
| $102 | |
| MSI 845E MAX | $106 |
| MSI 6368 | $78 |
| EPOX 8RDA+ | $168 |

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52X MAX CD-ROM
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|---|---|
| 17Inch SAMSUNG 753 (16in V.I.S) | +$185 |
| 256MB PC-133 | +$11 |
| 250MB ZIP INT. | +$95 |

## SUPER PLAY $519

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10/100MB NETWORK CARD
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EB-600W SPK W/SUBOOFER
**RECOMMENDED UPGRADES:**

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|---|---|
| 256MB DDR333 | +$25 |
| 40GB WD HDD @ 7200RPM | |
| 8MB CACHE | +$12 |
| 48X12X48 CD-REWRITER | |
| Retail | +$35 |

## TORNATO $409

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**RECOMMENDED UPGRADES:**

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|---|---|
| 256MB DDR PC-2100 | +$18 |
| 40GB MAXTOR HDD @ 7200RPM ATA-133 | +$16 |

## Hot Products!!

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|---|---|
| Creative (Inspire 2.1) 2500 Speaker | $58 |
| XFX GF4 Mx440SE 64M | $75 |
| Samsung 15" LCD 151S | $379 |
| Linksys Wireless USB Adaptor | $84 |
| Pioneer DVD-RW A05 Retail | $410 |
| IEEE 1394 Firewire Card | $26 |
| 64 MB USB Drive | $42 |
| ML1430 Laser Printer 8MB Cache | $259 |
| WD 80GB 7200RPM ATA-100 | $149 |
| ATI All-In-Wonder 9700PRO 128MB DDR | $567 |
| 17" Samsung 760V LCD TFT | $649 |
| 17" Samsung 753DF Flat Screen | $186 |
| 19" Samsung 955DF Flat Screen | $319 |

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|---|---|
| 19" SAMSUNG LCD | +$190 |
| 52X24X52 LITEON CD-RW | +$15 |
| 512MB DDR PC-2700 | +$40 |

## GRAND XP $1129

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**RECOMMENDED UPGRADES:**

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|---|---|
| 17" SAMSUNG LCD TFT | +$274 |
| MSI GI4 Ti4200 128MB AGP8X | +$140 |
| MSI KT4Q nFORCE2 AGP8X | +$77 |

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10/100 Network Card
Windows XP Home Edition
**RECOMMENDED UPGRADES:**

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|---|---|
| 40GB MAXTOR HDD 7200RPM ATA-133 | +$16 |
| XFX GI4 Mx440 64MB DDR WITH TV-OUT | +$31 |

## GRAND P4 $1169

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10/100 NIC, OPTICAL MOUSE
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600W SPK W/SUB
**RECOMMENDED UPGRADES:**

| | |
|---|---|
| 17" SAMSUNG LCD | +$274 |
| XFX GF4 Mx440 8X | +$121 |
| Gigabyte 8INXP (E7205) | +$168 |

## CD-RW/DVD

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|---|---|
| LG 52x CD-ROM | $26 |
| LG 52x24x52 CDRW | $67.9 |
| LG 16x DVD-ROM | $48 |
| Liteon 52x24x52 CD-RW | $79.9 |
| Liteon 16x DVD-ROM | $49.9 |
| Optorite 48X16X48 CD-RW | $60.9 |
| Sony 16x DVD-ROM | $49 |
| Toshiba 16x DVD-ROM | $55 |
| More .... www.icct.ca | |

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| Creative (Inspire 2.1) 2500 | $58 |
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# The newest math twister

By MARA GULENS

New and exciting approaches to math are always welcome. My all-round favourite is the Zoombinis software series, which wrap math, logic and problem solving in adventure-odysseys that twist the brain and reward success. Leapfrog's *Turbo Twist Math* is another favourite that has kids literally twisting the handheld device to get the right answer.

Somewhere in between comes a new title from B.C. called *Mathamagica*. The PC fantasy game is intended for the 7 to 11 set and guides kids through math questions that "open the vortex to the next realm" – of which there are five – until kids make it to the grand finale.

Although the install process is a snap, it's important an adult be present to kick off the game. Players can choose between five levels, but it's not just easy, medium, hard as in most kids' games, so you may have to pick "beginner1" until the kids understand that's easier than "intermediate." You can also focus on a specific math skill, so if subtraction is an issue, work on that.

I played my first game as Beginner 1, with a focus on addition. Easy enough, I thought, and except for setting the clock and working out language riddles, it should be no problem for my six-year-old nephew. Expert level, all math skills (addition, subtraction, multiplication and division), with rhyming clues only, had me grabbing the calculator. Expert and all riddles had me really working hard, so there's no question the game can grow with you.

The game's premise is straightforward. The "Little Blue Friend" follows a nicely wrapped gift down a hole. To find what's inside the box, the player has to solve math problems, win clues and guess the answer.

There's something slightly retro about this game's look. Maybe it's the 2D quality, could be the flashing "100 POINTS" or the linear point-to-point advancement. That said, it still has the colourful dynamic "flash" feel of today's games that should keep kids interested.

The upside of this "flatness" is that *Mathamagica* takes up a fraction of the disk space required by other games. *Harry Potter and the Chamber of Secrets* requires 600 MB hard drive space; *Mathamagica* needs only 20 MB. Candy Byte sells licences to schools, and this product is perfect for installing on computers that don't have a lot of space.

In each realm, kids click on objects and a math question pops up. Every now and then one of the objects explodes and kids are taken to the Monster Attack Games where they match mathematical formulas with solutions or click on items that are "lesser than." With the exception of the clock challenge, my nephew could handle it all.

Games cannot be altered mid-play (as in, if kids find the skill level too high or want to include another type of riddle, they can't), but *Mathamagica* does allow for multiple players, or multi-play by the same player. An hourglass keeps time, and parents can log in and track their child's progress.

The most confusing element of the game is the random explosions. In the Zoombinis titles, avoiding explosions means mastering the logical sequence that prevents that from happening. Here there is no logic, and it can be frustrating.

The scoring is also a bit trying. Pop-ups keep reminding players of the number of points required and the number of points accumulated. But players will most likely treat these like ads and click past them. For a kids' game it might be better to just hide this data in the background.

When players have finally collected all five clues, they get to guess the gift's contents. My first five clues were sweet, cream, red, fruit and berry. Answer? Strawberry. Concluding a math game with a verbal riddle is a bit annoying, especially if the riddle itself is annoying.

When you're done, "GAME OVER" flashes in big red letters on the screen, and you can't go back to replay games you liked. The only option is to start over, which kids will, if only to come to terms with those random explosions. Surely there must be some logic?

Reviewer's note: According to Candy Byte Software "the monster attacks are completely random ... The whole point is to keep kids on their toes so that they never know what to expect." ◆

Heard of a new kids' game you'd like reviewed? Send a note to: maragulens@yahoo.com.

**more INFO**

Mathamagica
$26.50 (Online orders, taxes and shipping incl.)
Candy Byte Software
www.candybyte.com

Ages 7 to 11

Requirements:
133 MHz Pentium processor, Windows 98/ME/2000/XP, 4X CD-ROM drive, 32 MB RAM, 20 MB hard drive space, 256-colour SVGA monitor, Windows compatible sound card, mouse and speakers

## Forget the windows ...

continued from page 41

errors to virtually rebuilding a corrupt drive. They can complete tasks that are far too numerous to tackle in this short column. Some things to consider though: Both products are still stuck in limbo between Classic and OS X. Symantec has progressed a little further with *SystemWorks 2.0*. Most of the package does run native to OS X (such as the popular Disk Doctor, FileSaver and UnErase) but nice utilities like Speed Disk and even the included smaller Disk Warrior Recovery Edition must run in Classic from the bootable Symantec CD.

A great bonus in the *SystemWorks* package is *Spring Cleaning* (how appropriate) by Aladdin. This sweeper type program can track down unused files, mismatched links to files, temp files, Internet leftovers and more. The first time I ran it I actually reclaimed more than 50 MB on my drive. Be forewarned though: *Spring Cleaning* only reports what it finds. One search finds empty folders that typically clutter up the directory system. While a folder may appear empty to *Spring Cleaning*, it could be used as a temp folder that is required for another program to run properly. If you're not sure, don't delete.

Alsoft has been promising a full native OS X version of *DiskWarrior* for a while now (version 3.0). The current version 2.1 will repair an OS X Extended disk, but it needs to boot from Classic mode as well.

Next month, we'll continue with the spring cleaning theme, but look in the corners for the smaller items that just make computing a little more interesting. ◆

CyberPlay

# Weirdness abounds on auction site

By GEOFF MARTIN

The past month was a strange one indeed on eBay.com, the popular auction site.

We'll start with the phenomenon that is now simply known as "The Giant Cheeto."

It all began when Hawaiian Navy officer Mike Evans bought a bag of Cheetos snacks and discovered a massive orange chunk of what the Frito-Lay company has speculated is cheese seasoning that collected in one of their processing machines and escaped the scrutiny of their usually eagle-eyed employees.

On a lark, Evans put the monstrous Cheeto (which is slightly larger than a golf ball) up for auction on eBay, but when the popular silly news site Fark.com linked to the auction, its equally silly fans quickly bid the item up to $99 million before it was pulled by eBay watchdogs. Evans was eventually convinced to donate the freakish snack to an Iowa radio station, after it agreed to raise money for a local food bank. After raising US$1,600, the Cheeto found a permanent home as a "tourist attraction" in a local restaurant and was unveiled on live television thanks to ABC TV's late-night newcomer *Jimmy Kimmel Live*.

The Cheeto has since taken on a life of its own, with some going so far as to offer commemorative "Giant Cheeto" t-shirts in separate eBay auctions.

Next up is another late-night host, Conan O'Brien, who was "cheesed" recently to find an eBay auctioneer offering unauthorized reproductions of a fictitious state coin used in a *Late Night With Conan O'Brien* comedy bit. (The coin, which was a comedic jab at former US President Bill Clinton's home state of Arkansas, cannot be shown without offending at least some of our readers, as it portrays Clinton and a female companion engaged in what was purportedly a popular White House pastime.)

O'Brien obviously wasn't happy that no credit was given to his show or its graphic designer, and so on consecutive nights he trotted out the bashful artist responsible for the original coin to read expletive-laden legal threats from a cue-card.

And finally, we have the just plain weird.

Former teen pin-up and locally-born actor Corey Haim, who starred in such '80s movies as *Murphy's Romance* and *The Lost Boys* before running into heaps of trouble with cocaine and other drugs, recently offered a personal phone call to the winning bidder of an eBay auction. The auction was offered through Haim's official Web site and trumpeted, "One lucky winner will get the chance to talk one-on-one with one of their favourite stars!"

The item found itself the subject of a minor bidding war (well, 32 bids, to be exact), and was eventually won with a final bid of US$455.

Haim recently moved home to Toronto from Los Angeles and insists he has been clean and sober for a while now, so we trust the money will be put to good use.

## High-tech dispute settled by low-tech means

Corporate lawyers in New Zealand apparently weren't faring any better than their Canadian brethren last month, as two New Zealand high-tech bosses agreed to settle a potentially ugly legal dispute with a friendly best-of-three arm wrestling match.

The match was born after a dispute between New Zealand telecom companies TeamTalk and MCS Digital failed to be resolved by a local competition commission and was about to head to litigation. The dispute revolved around MCS Digital's desire to access TeamTalk's mobile radio network, and was worth about $150,000. Once it was clear the nine-month-old case was only going to be settled in a courtroom, TeamTalk CEO David Ware simply rang up MCS Digital boss Allan Cosford and suggested that the two settle their differences like men with an old-fashioned arm-wrestling competition.

Cosford agreed, and the match was on.

Ware came out strong and took the first match, but Cosford eventually prevailed by winning the next two. Afterwards, the two combatants, along with the 60-or-so friends and colleagues who ventured down to the local boxing club to cheer them on, mingled over beer and snacks.

In times like these, we can only hope that more people can take to heart the simple lessons taught by these two amiable and reasonable men.

(Incidentally, if Prime Minister Jean Chrétien and US President George W. Bush ever decide to settle a cross-border trade dispute with a friendly game of Rock, Paper, Scissors, it would be in our leader's best interests to take paper every time, since it's likely that his counterpart will have trouble counting to three, and will wind up showing rock nine times out of 10.)

## Cowpland dusts off law books

Michael Cowpland, the founder and former CEO of Ottawa-based Corel, has decided to defend himself against insider trading charges in order to save money on legal fees.

That's right, the man whose wife once caused an international stir by showing up at a Corel gala wearing a dress valued at more than $1 million (thanks to a breastplate made of solid gold and a diamond "nipple"), and whose former company bled hundreds of millions of dollars during his tenure, is actually trying to save money.

Cowpland is facing a regulatory hearing by the Ontario Securities Commission that is set to begin next month, after his personal holding company MCJC Holdings Inc. was accused in 1999 of selling more than $20 million in Corel stock in 1997 with the knowledge that Corel was about to miss earnings forecasts. When the company's actual earnings were revealed, Corel's stock tanked sharply and Cowpland is alleged to have avoided some $5 million in losses thanks to the timely trade.

Cowpland now says that he's tired of dealing with the long-standing legal mess and that it makes perfect sense to defend himself, since he feels the facts are fairly straight-forward. He's also explained that he would prefer to invest in his new wireless company, Zim Technologies, rather than fill the pockets of corporate lawyers.

It's been said a million times before, and so surely Mr. Cowpland has heard the following phrase by now: "A lawyer who defends himself has a fool for a client."

But it's also been said that "A fool and his money are soon parted," and so it would appear that Mr. Cowpland has unfortunately found himself in a lose-lose situation.

We wish him the best of luck. ◆

# Another *FIFA* soccer game

By NESTOR GULA

As I loaded *FIFA Soccer 2003* onto my computer, I realized that I have four of these games on my hard disk. Last year I reviewed *FIFA 2002* and *2002 FIFA World Cup*. The year before, *FIFA 2001 Major League Soccer* crossed my desk. These were all good games, but by the time I reviewed *2002 FIFA World Cup* I was starting to wonder what was new.

This latest incarnation of the *FIFA Soccer* franchise has some new stuff to keep it mildly interesting. There is a new game engine that gives the player more ball control – this makes the game a bit harder to play, actually. More skill – and less dumb luck – is needed to succeed in this game. The game is loaded with leagues and teams – 450 teams from 16 leagues, representing about 10,000 players.

The game, which comes on two discs, also has a new look – a stylized, more, dare I say it, European look to the menu system. You can play a single friendly match pitting one team against any of the others. You can't have teams playing against themselves, but you can get players playing against themselves by pitting a league team, such as Manchester United, against a national team, such as England. You'll have some of the same players on both teams. This is a bug that was present in past versions and still hasn't been corrected.

The Club Championship mode pits the 18 best European teams, like Real Madrid, Inter Milan, Bayern Munich or Arsenal, against each other.

In the Season mode, you play a full season in one of 14 soccer leagues, including the European leagues like the FA Premier League, the German Bundesliga and the Italian League, but also the Korean League and the American MLS. The three outstanding leagues that are not represented in the Season mode are the Brazilian League, the International League (comprising some national teams) and a "rest of world," which is a hodge-podge of various league teams included for no specific reason.

The Tournament mode lets you jump right into championship play. You can play the European Champions' Cup, the EFA Trophy, do a world tour or a regional championship, an international cup, ladder tournament or even create a custom tournament. All the tournament choices have some elements of customization built into them.

As mentioned earlier, gameplay is more challenging with this version than in previous ones. The game still features inane commentary from two gentlemen from the Isles. It also offers several languages besides English, like Swedish, German, Spanish, Italian, French and Dutch, to navigate the game with. Unfortunately, only English has the commentary. I would love to hear commentary in other languages, for the fun factor – especially in Spanish or Italian when a goal is scored.

*FIFA Soccer 2003* is a fine game – a good soccer sim for those who want to get into it. However, if you bought any of the previous three games, I would find it hard to justify shelling out dough for this. All of these games have so much gameplay in them that it is hard to imagine someone could have exhausted all that play potential and now is in need of an upgrade. If you have previous versions, you might want to skip this one. ◆

**more INFO**

*FIFA Soccer 2003*
$54.99
Electronic Arts
www.ea.com

Requirements:
Windows XP/ME/2000/98 (95/NT not supported), 350 MHz processor (750 MHz or higher recommended), 64 MB RAM (128 MB required for XP, recommended for all), 450 MB hard disk space (1.2 GB recommended), 4x CD-ROM (16x recommended), 16 MB supported Direct 3D capable video card (32 MB or greater supported Direct 3D video card), DirectX 8.1

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**Bohdan used a Fuji A201 camera to capture the image.**

**We were hoping for some more dynamic shots of winter time sports; we're not sure if the snow melted early in some parts, if all the ice rinks closed down or if everyone went south to warmer climes, but we didn't get the action shots we had hoped for.**

**Congratulations to Bohdan Madaj for submitting the winning image.**

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Submit your photographs, along with the information from the form below, by May 12th, 2003. You can submit up to three photographs, all of which must be accompanied by a submission form. Entries must be submitted via e-mail. Files should be no bigger than 500 KB. One photo per e-mail.

Contest Rules: Prizes must be claimed by June 10th, 2003. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. In order and to be eligible to win, persons must be residents of Canada, and not employees or be connected with an employee of Canada Computes!, its affiliate companies, or advertising or promotional agencies. The winners will be selected by Toronto Computes! on May 13th, 2003 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or e-mail. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of Toronto Computes! and may be used in subsequent advertisements for the contest. All entries must be submitted by their artist and must be original work.

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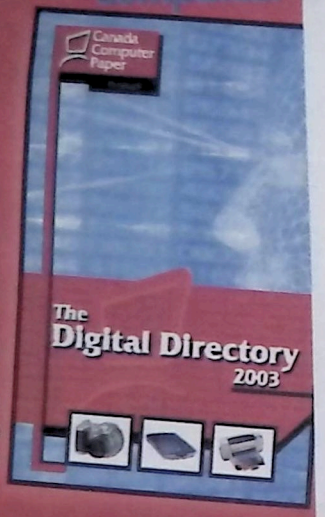


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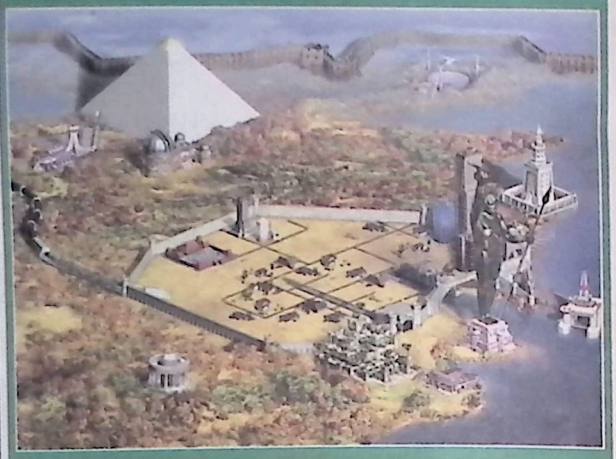
CYBERPLAY

# Civilization III: Play The World



By CHRIS TALBOT

Even though *Civilization* fans didn't have multiplayer capabilities out of the box with *Civilization III*, they now have their wish with the *Play The World* expansion – but is it too little, too late?

The biggest attraction to *Play The World* is the Internet, LAN, hotseat and play-by-e-mail features, which allow would-be world leaders to conquer their friends in the popular turn-based strategy game, but there are other goodies as well, including eight new playable civilizations (including the Celts, Scandinavians, Mongols and Carthiginians), new play modes specific to multiplayer games (simultaneous and turnless) and a scenario editor that will help players to create scenarios based on various time periods, including Feudal Japan and World War II. Players can even use the editor to create fantasy scenarios that, say, take place in prehistoric eras.

*Civilization* fans can whine until they're blue in the face that multiplayer should've been included in *Civ III*, and maybe it should have been, but the simple fact is *Play The World* is a good expansion pack with more than just multiplayer features. However, the multiplayer does have a few bugs. The multiplayer setup screen seems to like to reset everything to default on a whim, so before launching a game, players should make sure the game hasn't reset changes back to default. Also, a major glitch happened during our first play-by-e-mail attempt. Two players and a full complement of AI civilizations were activated, but player two's commands weren't processed. The game was restarted and the problem seemed to correct itself. Also, the game refused to let us set up a play-by-e-mail game on any difficulty higher than Chieftain, the easiest setting.

Overall, the new civilizations are fun to play and the multiplayer functions add a lot of replayability to the game. Of special interest to strategists who don't have the time to sit down and play a game out with a buddy is the play-by-e-mail option. Of course, the game is slow going and for the first 20 or so turns there's almost nothing to do but click on "End Turn." ◆

**more INFO**

***Civilization III: Play The World***
**$47.99**
**Infogrames**
**www.civ3.com**

EVERYONE E

**Requirements:**
**Pentium II 300 MHz processor, 32 MB of RAM, 675 MB of hard disk space (plus 50 MB for the swap file), 4X CD ROM drive, DirectX 8.0-compatible video card that operates at 1024x768 resolution**

# O.R.B.: Off-World Resource Base

By ANDREW POTICHNYJ

Is harvesting resources your thing? Well, *O.R.B.: Off-World Resource Base* is a 3D real-time strategy game in which players fly around in space and do exactly that. The resources you collect from these asteroids become useful as you to build military power and conquer enemies.

If, like me, you are not much of an experienced space explorer, *ORB*'s tutorial mode will definitely get you on your feet. It teaches everything from basic ship-building to military conquest. You will learn how to keep all of your resources in check, how to manoeuvre your fleet and how to use the very complex, yet very cool, 3D camera, which allows you to see all angles of your ship.

The training sessions is a little bland, with minimal special effects, standard explosions and a lacklustre concept. But don't give in to the temptation to quit. After the training run is done, you are compensated with wonderful graphics, huge and powerful explosions and a series of very helpful menus.

Once you begin playing real missions, you will discover that your enemies, who are mining for the same asteroid resources that you are, have the upper hand in battle. And they will, more likely than not, always win. It takes a bit of practice, but in due time you will become a first-rate space fighter and will pose a solid challenge to your opponents, which may be either online players or the computer.

One tricky aspect of *ORB* is controling your fleet of miners, fighters, freighters and bases, all while still exploring for more resources. Meanwhile you are battling enemy aliens. Once again, a few practice missions and a solid run-through of the training sessions will take you a long way.

As the game progresses and you begin to master the controls, you will come to appreciate the excellent graphics and soundtrack that this title features. Because of attributes like the very helpful drop-down menus, the huge fiery explosions and a fabulous multiplayer mode, you will find yourself more inclined to stay with this game.

### Have we been here before?

The game's concept leaves a little to be desired though, as this is basically the same old space story seen in other games of this genre, where two races battle over resources, which are used to improve technology and eliminate the other race.

On the other hand, the game's soundtrack is a work of art. The music moves along with the game and accompanies the current play situation very appropriately. It really adds to the deep space feel of the game.

One aspect of the game that I really did not enjoy was the fact that on any given mission, only a few asteroids were available for mining and the rest were just barren lands with no value. This meant that for much of the game, I was struggling with low resource levels, wearing out my mouse pad trying to find that needle-in-a-haystack that held some value for the fleet. It was hard to research everything on the map and still maintain a fighting force that could challenge any opponent.

When bored of the single player mode, you can switch to multiplayer and set up your own game, which allows you to decide on the number of resource-holding asteroids and customize your own ships. This eases the frustration of not being able to find many valuable asteroids during missions.

All-in-all *Off-World Resource Base* is a good game with a mediocre plot. This title would appeal to serious sci-fi fantasy enthusiasts and real time strategy fans, and is worth checking out if only for the graphics and sounds. ◆

**more INFO**

*O.R.B.: Off-World Resource Base*
$68.99
Strategy First
www.strategyfirst.com

Requirements:
Windows 95/98/ME/2000/XP; PIII, 450mhz or 600 MHz; 128 MB RAM; 500 MB hard drive space; 3D video card with 16 MB VRAM; DirectX 8.1 or higher; DirectX compatible sound card; 56kbps modem for LAN and Internet play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# PC gaming: What's coming...

By CHRIS TALBOT

***Grand Theft Auto: Vice City***

Last year's PlayStation 2 hit about mobster turf wars in a fake Florida city during the 1980s will be coming to PC this spring. *Grand Theft Auto: Vice City*, which follows about a year on the heels of the popular *Grand Theft Auto III*, has been selling well on PS2, and for good reason. The game stars a cast of Hollywood actors voicing characters throughout the game, lending a mob movie-like feel to the controversial game series.

Starring as the voice of ex-con Tommy Vercetti is crime movie veteran Ray Liotta. Vercetti has just been released from a 15-year prison sentence and immediately jumps back in the game. His Liberty City boss (Liberty City is the name of the municipality in *GTA3*) sends Vercetti south to look after a deal that quickly sours, leaving Tommy without his boss's cash or the product he was buying.

The conversion of *GTA3* from PS2 to PC last year was very good. It added a new targeting system perfect for mouse-and-keyboard players, as well as the ability to add MP3s to the game to act as a radio station (while driving around the city, players can tune into various radio stations – and developer Rockstar North licensed some old 1980s pop tunes for *Vice City*).

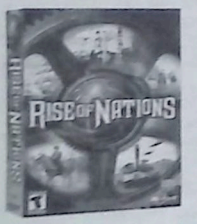
While details are still a little sketchy about changes to *Vice City*, gamers can probably expect the gameplay to be similar to that of the PC version of *GTA3*.

***Rise of Nations***

With *Age of Mythology* still fresh in the minds of real-time strategy game players, Microsoft is preparing to bring another RTS game to stores this month.

*Rise of Nations*, currently in the final phases of development and beta testing by Big Huge Games, is another historical strategy game beginning in the ancient world and moving into the modern world. The *Age of Empires* games, developed by Ensemble Studios and published by Microsoft, have a similar start in the ancient world but leave off at the end of the Middle Ages. According to Microsoft, *Rise of Nations* will begin in the Stone Age (like most historical RTS games) and end in the Information Age, which is a similar timeframe to the one found in the *Civilization* series of turn-based strategy games from Firaxis. The similarities between *Rise of Nations* and *Civilization* shouldn't come as a surprise, since the lead designer, Brian Reynolds, worked as a designer on *Civilization II*.

The final version of *Rise of Nations* should have 18 playable nations (Aztecs, Bantu, British, Chinese, Egyptian, French, German, Greek, Incan, Japanese, Korean, Mayan, Mongolian, Nubian, Roman, Russian, Spanish and Turkish) and will allow up to eight people to connect via a LAN or the Internet to play together. A scenario editor is also expected to be included when *Rise of Nations* ships.



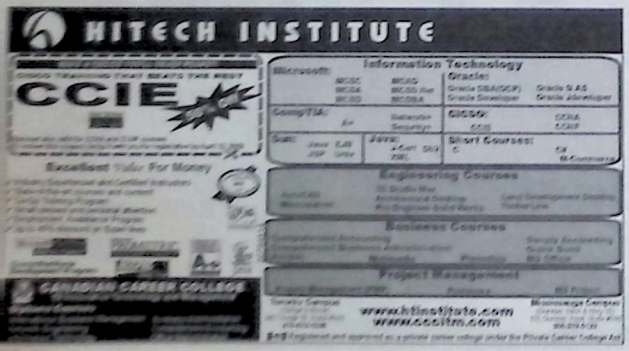

***Tomb Raider: Angel of Darkness***

The next chapter in the Lara Croft saga has been delayed far too many times, and *Tomb Raider* fans are getting kind of antsy for a new game starring the voluptuous, gun-toting heroine.

We thought we were going to see *Tomb Raider: Angel of Darkness* last fall, but the last we heard, the new game was supposed to be out in March. Eidos public relations staff still hadn't been informed of a release date though, and the official Web site is listing *Angel of Darkness* as having a spring 2003 launch date.

For those who haven't been keeping tabs on Lara Croft, the formula of *Tomb Raider* has been modified for *Angel of Darkness*. First off, Lara won't be the only playable character. At some points during the game, players will take control of occultist Kurtis Trent. Also, the story will revolve around Lara being framed for the murder of her mentor, Werner Von Croy, and she'll be on the run to clear her name and stop an evil plot.

One new feature to the game is the ability to talk to other characters in the game, which should add some role-playing aspects to the series. Also, according to the Eidos Interactive Web site, the developers have created a new gameplay system. We should be seeing this on store shelves anytime now. ◆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By TED KRITSONIS

After taking a year off from the hardcourt for the PC, EA Sports has come back with *NBA Live 2003*.

The game's controls have been overhauled to give gamers the option to use both hands, so you can make quick steals, huge shot blocks and crossover dribbles. The animations have also been changed and hundreds of new ones added, including animated coaches in 3D throwing fits at players. Certain players have specific moves, but they have to be unlocked.

The PC version of *Live* offers the same modes – Practice, Exhibition, Season, Playoffs and Franchise – that its console counterparts do, but the online capabilities are what set it apart. You can create clubs for small tournaments, check stats and even make trades with other gamers.

It seems EA paid a lot of attention to detail in the graphics and sound, as they're a great improvement. Players are very recognizable based on their real-life skintones, something sorely lacking in many b-ball games.

The gameplay isn't as realistic as it should be though; blocking shots is too easy and games can easily reach 90 or 100 points with five-minute quarters. Superstar players can almost do whatever they want. Sure, they're great players, but they're not superhuman. ◆

**more INFO**

NBA Live 2003
$29.99
EA Sports
www.ea.com

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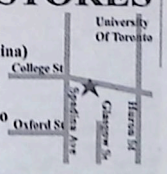


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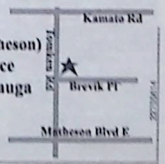

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# Great gaming from the "bargain bin"

Shopping for a new computer game can be an irritating experience for those low on cash or for gamers whose PC may not be fast enough to run the latest titles. Thankfully, many software retailers devote a small section of their floor space to "bargain bin" games.

If you look hard enough, you can find some hidden gems buried deep below the bottomless pile of crummy deer hunting simulations. The following are just a few of the best dirt-cheap PC titles available for under a cool $10. Prices may vary slightly among retailers.

**Diablo**
Blizzard Entertainment
$8.99
Rating: Mature
www.blizzard.com/diablo

Heralded as one of the most influential fantasy role-playing games (RPGs) of our time, Blizzard's *Diablo* combined fast-paced hack-and-slash gameplay with a flawless user-interface and something quite revolutionary for the time: Multiplayer matches over the Net that could be launched with a mouse-click.

To find and destroy the all-powerful demon, Diablo, gamers choose to play as one of three character classes – the warrior, the rogue or the sorcerer – before traversing through subterranean dungeons and a war-torn town.

Despite its 640x480 graphics, *Diablo* still looks great in 2003, including the stunning cinematic cut-scene movies.

**Myst Masterpiece Edition**
Ubi Soft
$6.99
Rating: Everyone
www.riven.com

Consider this game a "director's cut" edition of the classic Mac and Windows surreal adventure from the mid-'90s.

The original *Myst* – which, by the way, was one of the very first CD-ROM games – placed the player alone on an island shrouded in mystery. By solving puzzles, reading clues and journeying to various "ages," the gamer slowly unraveled an enlightening tale of injustice.

This "Masterpiece Edition" features a graphical overhaul (now in 24-bit colour), higher-quality movies and animations, digitally remastered music, and an integrated help guide that can assist players who are stuck on tough puzzles.

**Myth II: Worlds — The Definitive Myth II Collection**
Take-Two Interactive
$6.99
Rating: Mature
www.take2games.com/myth2worlds

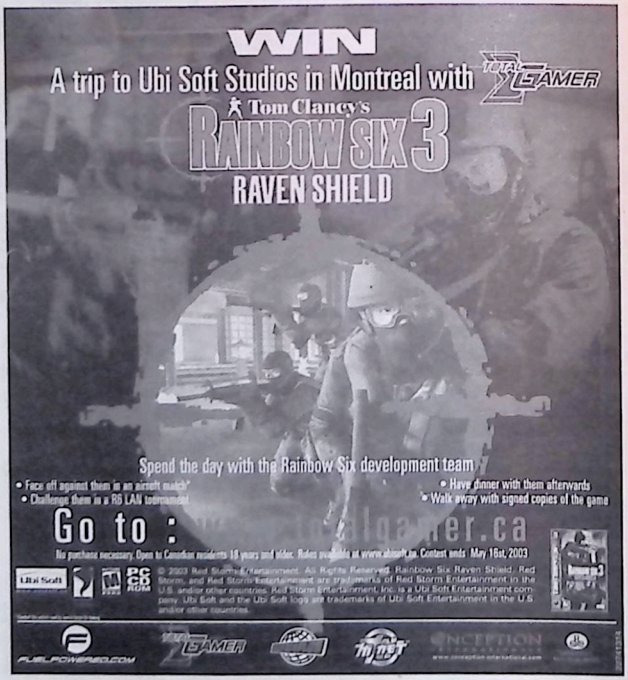
*Myth II* is a tactical war game with a fantasy twist.

This 3D sequel continues where its best-selling predecessor left off – the player is in control of powerful armies in a bloody battle between good and evil, human and inhuman. Battles take place on huge indoor and outdoor maps.

This three-CD set contains the complete *Myth II: Soulblighter* game, more than 50 new solo levels and dozens of multiplayer maps, loads of new characters, the official *Myth II* strategy guide in electronic format and a map editor for creating your own playable levels.

**Still bargain hunting?**

Other great bargain bin picks include Strategy First's *Kohan: Immortal Sovereigns - Game of the Year Edition* ($8.99; www.strategyfirst.com), Take-Two Interactive's *KISS Psycho Circus: The Nightmare Child* ($4.99; www.take2games.com), Ubi Soft's *Rainbow Six Covert Ops Essentials* ($9.99; www.ubi.com), Infogrames' *Alone in the Dark 4: A New Nightmare* ($9.99; www.infogrames.com) and Take-Two Interactive's *Serious Sam* ($8.99; www.take2games.com). ◆



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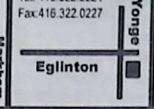


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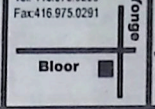


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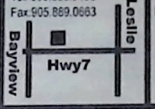


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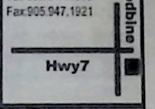


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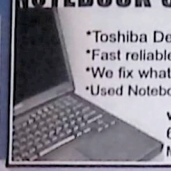

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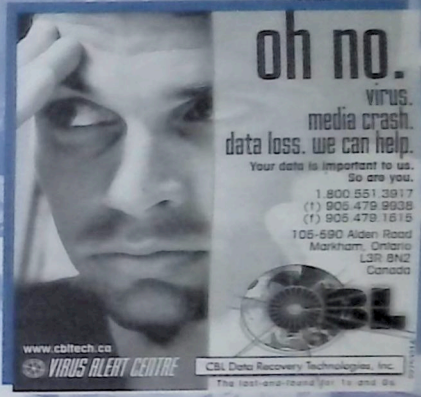


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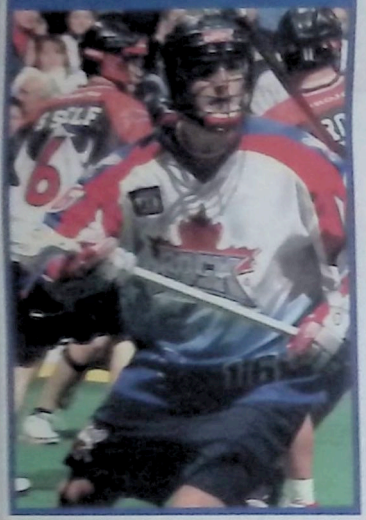
# Profile: Blaine Manning



Toronto Rock forward Blaine Manning plays lacrosse – otherwise known as the little sport that could. Before there was hockey, there was another "Canada's game," played with sticks and nets, speed and heart, just like that ballet on ice. Well, minus the ice. Nevertheless, lacrosse appears to have come out of nowhere, its popularity supporting a 12-team North American league, television exposure and filling the Air Canada Centre with over 15,000 patrons per game.

"It's a great sport – it's very exciting," says Manning, 23. "Canadians can relate to it because it's much like hockey. It's played in the same dimensions of the rink and it's affordable." The Sherwood Park, Alberta-born native and graduate of Radford University in Virginia is only in his second season with the Rock and says he sees nowhere but up for the team and the league. This despite heavy competition from mainstream sports franchises like the Toronto Maple Leafs and the Toronto Raptors.

"There's a market throughout North America for it as an affordable family sport," he says. "It's just a matter of finding the formula for success. We need to find exactly where we fit in the sports scene – we're obviously not the big-time, big-money sport. But some fans come up to me and tell me they're happy to finally see a winning team in Toronto." That's a sentiment this city hasn't been able to express for some time. Currently first in their division, Manning expects the team to be in the race for the Champions Cup come April. "We have a good team so ultimately we'd like to be in the final."

**Who:** Blaine Manning, forward, Toronto Rock Lacrosse Club.

**Computer now used:** IBM PC.

**Computer first used:** "Probably in 4th grade, we had a computer lab and I'm not sure what was in there but they were pretty funky – I think they were Apples with the old floppy disks. You got to play the games on them."

**Favourite computer:** Dell laptop; "It's pretty amazing what you can do with one of these things."

**Other technical gadgetry in use at this time (cells, PDA, etc.):** Samsung cell phone.

**Do you use your computer for play?** No.

**Best thing about the technology you have:** "It has to be convenient. The computer being able to access any type of information on the Internet is huge for my day-to-day life."

**Worst thing:** [Chuckles] "I don't understand it. When there's a problem or a glitch with the computer I'm helpless. I need to call somebody in because I really just don't understand them all that well."

**What can't you live without?** Computer; "As far as the business world, you need a computer. You can't really do a whole lot without one."

**Is there anything you think you need?** Palm Pilot.

**Personal take on issues dealing with technology in general:** "I think technology is a great thing. It's always helping make life easier for everyone. So I think the more research, the more things they come out with, the better off we're gonna be. I don't think you should ever be at a standstill or be complacent with what you have." ◆

*-interview by Samson Okalow*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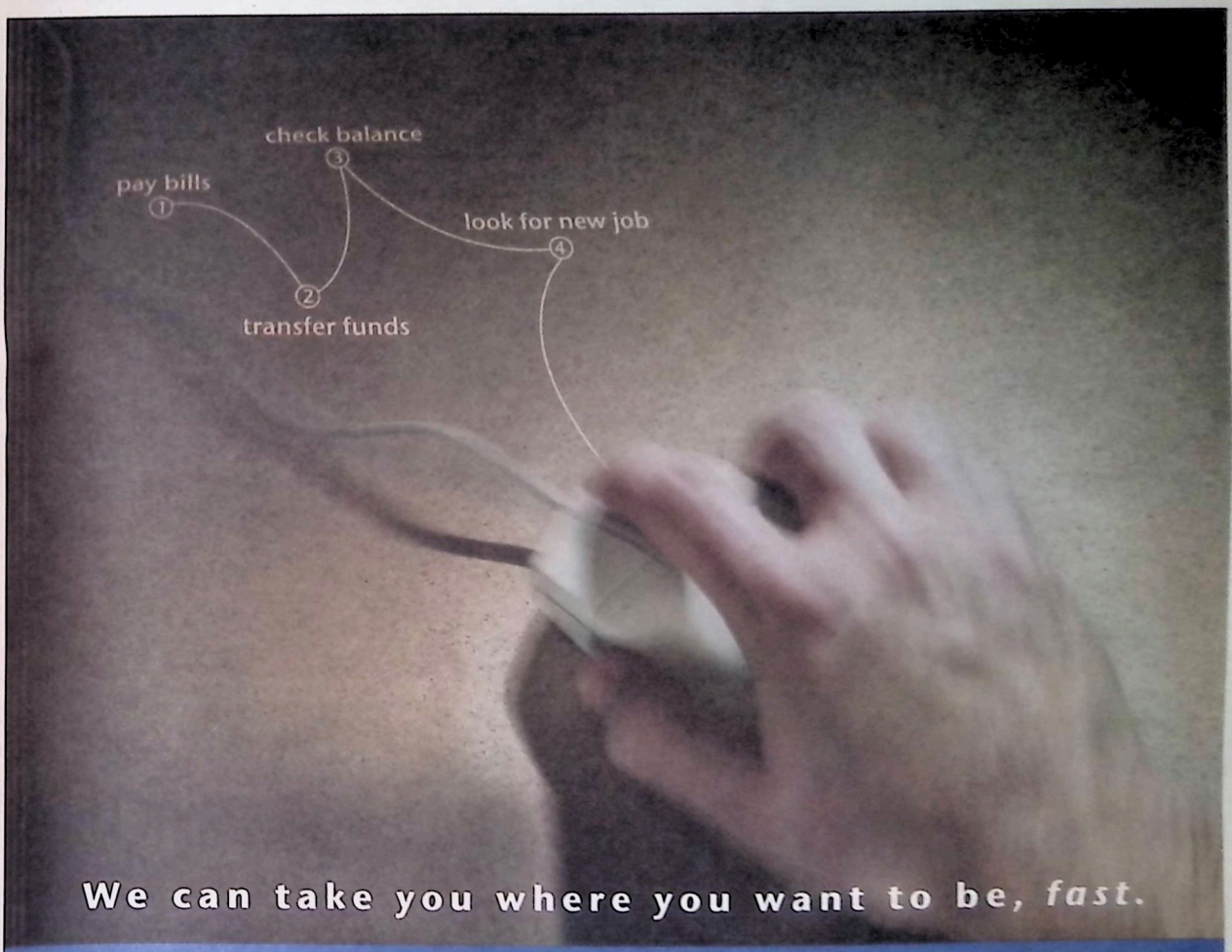


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**Recommended Upgrades:**
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- Deluxe Nylon Carrying Case
- Microsoft Windows XP Home Edition
- WordPerfect Productivity Pack
- 1 Year Express Depot Service[4]
- **Upgrade to 1 Year CompleteCare coverage[4] for $99[1]**

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